

**January**

## **OPTICS IN THE CITY OF LIGHT RESEARCH EXPERIENCE FOR UNDERGRADUATES (REU) - FRANCE**

This year the Optics in the City of Light Research Experience for Undergraduates (REU) will offer 8 undergraduate junior level students the opportunity to spend 2 months in a variety of laboratories in Paris performing research with a wide range of ultrafast lasers. Optics, especially the new discoveries in Extreme Light, is one of the most exciting areas of science. Students in this program will experience strong collaborative science that is currently taking place between University of Michigan (UM) Center for Ultrafast Optical Science (CUOS), University Paris-Saclay, Ecole Polytechnique, Ecole Nationale de Techniques Avancées (ENSTA), Université Paris-Sud 11 Orsay, Ecole Normale Supérieure de Cachan, and l'Institut d' Optique Graduate School. Teams of faculty (one from Ann Arbor and one from Paris) will each direct an REU student on a collaborative project

Levels: Juniors who will be Seniors in Fall 2020

Citizenship Requirements: US Citizen or Green Card Holder

Deadline to Apply: January 8, 2020

**Apply**

## **US DEPARTMENT OF ENERGY SULI Program**

Summer internships at the DOE Labs including Ames Lab, Argonne National Lab, Brookhaven National Lab, Fermi National Lab, Lawrence Berkeley National Lab, Oak Ridge National Lab, Pacific Northwest National Lab, Princeton Plasma Physics Lab, Stanford Linear Accelerator Lab, Thomas Jefferson National Accelerator Facility,

Levels: Freshmen, Sophomores, Juniors, and Seniors and Recent graduates

Minimum GPA: 3.0

Citizenship Requirements: US Citizens & Permanent Residents

Deadline to Apply: January 9, 2020

**Apply**

## **Baylor College of Medicine**

Baylor College of Medicine's Summer Undergraduate Research Training (SMART) Program was developed to provide frontier-level, biomedical summer research projects for undergraduates in a supportive environment with supplemental educational activities such as free GRE prep workshops. Applicants should have an interest in pursuing a research career.

Levels: Freshmen, Sophomores, Juniors & Seniors

Citizenship Requirements: Must Minimum GPA: 3.0

Deadline to Apply: January 11, 2020

[Apply](#)

## **BROAD INSTITUTE**

The Broad Summer Research Program (BSRP) is an intensive nine-week summer research opportunity designed for undergraduates with a commitment to biomedical research and an interest in genomics. BSRP has a strong record of success in helping students to nurture their passion for research and succeed in graduate school and scientific careers. Students spend the summer performing original computational or experimental-based research in labs across the Broad's research areas, from cancer to infectious disease to computational biology. At the program's conclusion, students deliver oral and poster presentations on their research projects.

*Applicants do not need to have prior research experience but should be interested in an MD or Phd and have a strong interest in biomedical research*

Levels: Freshman, Sophomores, Juniors & Non-Graduating Seniors

Minimum GPA: 3.2

Citizenship Requirements: US Citizens & Permanent Residents

Deadline: January 13, 2020

[\*\*Apply\*\*](#)

## **Santa Fe Institute**

The SFI Research Experiences for Undergraduates (REU) program is a ten-week residential research opportunity in which students develop innovative research projects in collaboration with an SFI mentor. The program asks students to discard traditional disciplinary boundaries, and combine concepts and tools from the physical, natural, and social sciences

Levels: All Levels

Minimum GPA: No minimum GPA

Citizenship Requirements: Applicants are welcome from any country. International students will need to be sponsored on an F-1 visa by their home institution (contact your international office at your university to inquire about CPT/OPT status).

**Deadline: January 13, 2020**

**Apply**

## **Children's Hospital of Philadelphia Research Institute**

The Center for Injury Research and Prevention (CIRP) at the Children's Hospital of Philadelphia Research Institute hosts the Injury Science Research Experiences for Undergraduates (REU) program, a 10-week paid summer research internship opportunity for undergraduate students. CIRP is a leading multidisciplinary center engaged in collaborative cross-discipline research implementing real-world applications.

Students must be interested in pursuing a PhD

Freshmen, Sophomores, Juniors, and non-graduating Seniors

Minimum GPA: 3.0

Citizenship Requirements: US Citizens & Permanent Residents

Deadline to Apply: January 15, 2020

**Apply**

## **COLD SPRING HARBOR**

The Undergraduate Research Program (URP) at CSHL provides an opportunity for undergraduate scientists from around the world to conduct first-rate research. Students learn the scientific process, technical methods and theoretical principles, and communicate their discoveries to other scientists. Approximately 20 students come to CSHL each summer for the 10-week program, living and working in the exciting Laboratory environment.

Levels: Sophomores, Juniors, Seniors

Citizenship Status: Students of any country are eligible to apply.

Minimum GPA: Not specified

(However, Successful applicants generally have GPAs around 3.5 or higher in their science and math courses

Deadline to Apply: January 15, 2020

**Apply**

## **University of Michigan**

Entering its 34th year, the University of Michigan Summer Research Opportunity Program (SROP) is designed for outstanding undergraduate students who are underrepresented in their field of study.

Levels: Juniors & Seniors

Minimum GPA: 3.0

Citizenship Requirements: US Citizens, Permanent Residents or non-US Citizens with DACA

Deadline to Apply: January 15, 2020

## **UC SAN DIEGO DESIGNING FOR SAFETY & SAFETY BY DESIGN**

Program Description: The overarching goal of this NSF REU Site is to immerse students in a meaningful and highly interdisciplinary research environment within the structural engineering domain and to teach them that design does not end with construction. Instead, designing for safety embodies: quantifying potential load conditions, damage mechanics, and uncertainties; monitoring for anomalies during operations; processing this information through cyber-modeling via digital surrogates; and translating the

information to actionable knowledge for improving current and future system designs. This REU Site will recruit and train 12 diverse U.S. scholars for eight weeks each summer, recruited from across the nation with emphasis on broadening the participation of underrepresented minority, women, and economically-disadvantaged students, to conduct research alongside six professors and their graduate students.

Levels: Freshman, Sophomores, Juniors, and non graduating seniors

Minimum GPA: 3.3

Citizenship Requirements: US Citizens & Permanent Residents

Deadline: January 15, 2020

**Apply**

## **Wake Forest**

Through its Summer Scholars Program, the Wake Forest Institute for Regenerative Medicine (WFIRM) offers undergraduate students an opportunity to engage in exciting, multidisciplinary research firsthand at the interface of engineering and biology in challenging areas of tissue engineering and regenerative medicine (TERM). Summer scholars receive a \$5,000 stipend for their participation in the 10-week program.

Levels: Freshmen, Sophomores, Juniors, and non-graduating Seniors

Citizenship Requirements: US Citizens & Permanent Residents *and International students who currently have a J-1 or F-1 visa and who are already attending school in the United States are also eligible to apply*

Minimum GPA: 2.85

Deadline to Apply: January 15, 2020

**Apply**

## **University of Washington Sensorimotor Neural Engineering**

The CSNE at the University of Washington sponsors a 10-week Research Experience for Undergraduates (REU) on the Seattle campus during the summer. This program provides undergraduate students with opportunities to work on research projects with scientists and to take part in workshop training sessions in ethics, communications, and

scientific presentation skills designed to provide the undergraduate scientist with a solid foundation for graduate study. Undergraduates will help with research in one of the labs at the UW.

Levels: Freshman, Sophomores, Juniors & Non-graduating Seniors

Minimum GPA: Not Specified

Citizenship Requirements: US Citizens & Permanent Residents

Deadline: January 15, 2020

[Apply](#)

## **University of Washington**

### **Sensorimotor Neural Engineering Research Experience for Veterans**

Participants in the REV program will work in research laboratories at the interface of biology and engineering. For 10 weeks, participants work in a laboratory and are mentored by a graduate student, a postdoctoral trainee, and a professor. Participants work with teams on projects with defined goals and also attend lectures and seminars on relevant topics. REV participants also take part in a poster session and a research symposium at the end of the summer.

Levels: All Levels but must be US Veteran

Minimum GPA: Not Specified

Citizenship Requirements: US Citizens & Permanent Residents

Deadline: January 15, 2020

[Apply](#)

## **Sens Research Foundation Summer Scholars Program**

The SRF Summer Scholars Program offers undergraduate students the opportunity to conduct biomedical research to combat diseases of aging, such as cancer, Alzheimer's, and Parkinson's Disease. Under the guidance of a scientific mentor, each Summer Scholar is responsible for his or her own research project in such areas as genetic engineering and stem cell research. The Summer Scholars Program emphasizes the development of both laboratory and communication skills to develop well-rounded future scientists, healthcare professionals, and policy makers. Students participating in the

program will hone their writing skills via periodic reports, which are designed to emulate text scientists commonly must produce. At the end of the summer, students will have the opportunity to put all of their newly developed communication skills into practice at a student symposium

Levels: Freshmen, Sophomores, Juniors, Seniors

Citizenship Requirements: US Citizens & Permanent Residents and International students on a case-by-case basis.

Minimum GPA: Not Specified

Deadlines to Apply: January 15, 2020

**Apply**

## **UNIVERSITY OF CALIFORNIA AT SAN DIEGO**

### **Scripps Institution of Oceanography (SIO)**

The Marine Physical Laboratory (MPL) at world renowned Scripps Institution of Oceanography (SIO) seeks inquisitive motivated undergraduates with exceptional aptitude for quantitative science, majoring in engineering, physics, chemistry, biology or geology.

Undergraduate college students contemplating a career in scientific research and development are encouraged to apply for a summer research internship in marine science and technology. This ten- week summer internship program offers qualified students the opportunity to work with some of the most notable scientists in the world while earning a modest salary. In addition to their research, students will attend weekly seminars given by members of our faculty and scientific staff

Levels: Freshman, Sophomore, and Juniors

Minimum GPA: not specified

Citizenship Requirements: US Citizens & Permanent Residents



Deadline: January 17, 2020

**Apply**

## **CALTECH**

Undergraduate students in physics, astronomy and engineering are invited to participate in the development of gravitational-wave astronomy through the Caltech LIGO Summer Undergraduate Research Fellowships (SURF) program. This intensive summer program takes place each year at Caltech or one of the LIGO observatory sites, funded in part through the [Research Experiences for Undergraduates \(REU\) Program](#) of the [National Science Foundation](#). Undergraduate students from all institutions (both U.S. and foreign) are invited to apply to the Caltech LIGO SURF program. Research awards include a summer stipend and some funding for travel to the research site as needed.

Levels: Sophomores, Juniors, and non-graduating Seniors

Citizenship Requirements: US Citizens, Permanent Residents and International Students

Minimum GPA: 2.5

Deadline to Apply: January 17, 2020

**Apply**

## **NORTH CAROLINA STATE**

The FREEDM Systems Center Summer REU program offers a research opportunity to undergraduate students who are majoring in electrical and computer engineering, civil engineering, mechanical engineering, materials science engineering, computer science and related fields. The undergraduate student will spend 10 weeks during the summer conducting research at NC State, learning different aspects of university research, and presenting their work at symposia.

Levels: Freshman, Sophomores, Juniors & Non-graduating Seniors

Minimum GPA: Not Specified

Citizenship Requirements: US Citizens & Permanent Residents

Deadline: January 24, 2020

## UNIVERSITY OF CALIFORNIA AT IRVINE

UC Irvine's IoT-SITY REU Site will annually host 9-10 students from across the nation to conduct research during the summer with faculty mentors on topics related to IoT for Smart Communities. Participants will investigate exciting applications and explore ways in which we can reliably and safely apply and deploy IoT systems to develop the Smart and Connected Communities of the future.

Levels: Sophomores, Juniors, and non-graduating Seniors

Citizenship Requirements: US Citizens & Permanent Residents

Minimum GPA: 3.0

Deadline to Apply: January 25, 2020

**Apply**

## UNIVERSITY OF HAWAII AT HILO

The Pacific Internship Programs for Exploring Science (PIPES) is an undergraduate internship program housed within the Office of Research & Community Partnerships at the University of Hawai'i at Hilo. Our goals are to (1) foster a community committed to the stewardship of our natural resources in the Pacific and (2) work with a team of host mentors to provide interns with a transformative hands-on learning experience.

Applicants from students interested in pursuing a career related to conservation research, natural resource management and environmental education are strongly encouraged to apply.

Levels: Freshmen, Sophomores, Juniors, and Seniors.

Citizenship Requirements: US Citizens & Permanent Residents Minimum GPA: 2.0

Deadline to Apply: January 30, 2020

**Apply**

## **University of California at Berkeley**

SUPERB participants spend nine weeks at UC Berkeley during the summer working on exciting ongoing research projects focused on Big Data with EECS faculty mentors and graduate students. Students who participate in this research apprenticeship explore options for graduate study, gain exposure to a large research-oriented department, and are motivated to pursue graduate study.

Levels: Sophomores & above

Minimum GPA: 3

Citizenship Requirements: US Citizens & Permanent Residents

Deadline: January 31, 2020

[Apply](#)

## **CORNELL UNIVERSITY**

### **Molecular Biology and Genetics of Cell Signaling**

Program Description: This is a ten week summer program for ten students, focusing on diversity and funded as an NSF REU site. Each student does an intensive research project in one of the two dozen labs associated with the program. The research topics of these labs span molecular biology, cell biology, genetics, development, and structural biology. Students give poster and oral presentations at the end. The MBG REU Program has weekly meetings with discussions by faculty to give overviews of their research, with descriptions of the grad school application process, and with faculty critiques of students' drafts of their posters and slides. Also included are several social activities with peer mentors who are current PhD students here.

Levels: Rising Sophomores and Juniors

Minimum GPA: 3

Citizenship Requirements: US Citizens & Permanent Residents

Deadline: January 31, 2020

[Apply](#)

## HARVARD

The Summer Institute in Biomedical Informatics (SIBMI), now entering its 16th year, is for undergraduates with quantitative interests and skills who aspire to contribute to translational advances in biomedicine with a future PhD or research-oriented MD or MD/PhD

Levels: Rising Juniors & Seniors

Minimum GPA: Not Specified

Citizenship Requirements: U.S. Citizen or permanent residents only

Deadline to Apply: January 31, 2019

[Apply](#)

## IBM Research Centers & American Physical Society

The American Physical Society and IBM co-sponsor two undergraduate research internship programs: the APS/IBM Research Internship for Undergraduate Women, and the APS/IBM Research Internships for Underrepresented Minority Students. The goal of these internships is to encourage women and underrepresented minorities to pursue graduate studies in science and engineering. Students can choose to apply to IBM Research Centers in California, Texas or New York

Levels: Freshman, Sophomores, Juniors, and Non-Graduating Seniors

Minimum GPA: Not Specified

Citizenship Requirements: *There are no citizenship requirements*, however, students must be attending a university in the United States.

Deadline: January 31, 2020

**Apply**

*Please note these are two programs so if you are interested in both then you must fill out an application for each program.*

## UNIVERSITY OF BUFFALO

The Environmental Engineering Solutions for Pollution Prevention (EESPP) Research Experience for Undergraduates (REU) at the University at Buffalo (UB) is a 10-week summer program. EESPP-REU builds upon the past ERIE-REU program by promoting air and water pollution projects that are relevant to not only Western New York, but across the globe.

Projects focus on laboratory and/or field experimentation in three themed areas:

1. Pollutant Identification and Measurement
2. Pollutant Source Control
3. Environmental Remediation

Participants are paired with a faculty research mentor to conduct transformative air and/or water pollution research. Weekly group meetings of the REU cohort foster student-to-student communication via workshops and networking opportunities. A Research Symposium, as well as support for post-REU conference presentations and publications, provides students opportunities to hone their communication skills

Levels: Freshmen, Sophomores, Juniors, and non-graduating Seniors

Citizenship Requirements: US Citizens & Permanent Residents

Minimum GPA: Not specified

Deadline to Apply: Late January, however, this program has a rolling admissions so apply early

**Apply**

**February**

## Warm-Water Aquatic Ecology

"This REU Site is a novel, collaborative effort involving [Auburn University faculty mentors](#) specializing in diverse but complementary disciplines, including community ecology, fisheries management, aquaculture, evolution, limnology, molecular biology, microbiology, invasive species, fish behavior, outreach, physiology, parasitology, and conservation. Together these disciplines provide the education basis for undergraduate students to learn about techniques and tools to study aquatic communities, specifically warm-water systems such as [reservoirs, farm ponds, streams, and brackish estuaries](#). The primary objectives of this project include exposing participants to different scientific hypotheses, research techniques, and ecological habitats and conditions in an engaging, interdisciplinary atmosphere that fosters a strong interest in aquatic sciences by the next generation of water experts. "

Levels: Freshman, Sophomores, Junior, and Seniors graduating no earlier than September 2020.

Minimum GPA: Not Specified

Citizenship Requirements: US Citizens & Permanent Residents

Although not financially supported by the REU Site, they are also open to including a few strongly motivated and self-funded international students in our REU Site research and professional development activities.

This program strongly encourages applications for those traditionally under-represented groups in biology (i.e., African-Americans, Hispanic Americans, Native Americans, Alaska Natives, Native Hawaiians, other Pacific Islanders, students with disabilities, first generation college students, and U.S. veterans) as well as students from institutions with limited research opportunities (e.g., community colleges) or students in financial need to apply.

February 1, 2020

**Apply**

## **BRANDEIS UNIVERSITY**

The Brandeis Materials Research Science and Engineering Center (MRSEC) announces its "Bioinspired Soft Materials" Research Experience for Undergraduates (REU) program for summer 2020. The REU is a summer research program that will fund undergraduate students assigned to MRSEC laboratories.

Levels: Freshmen, Sophomores, Juniors & Non-Graduating Seniors

Minimum GPA: Not Specified

Citizenship Requirements: US Citizens & Permanent Residents

Deadline: February 1, 2020

**Apply**

## **California Academy of Sciences**

Since 1995, the California Academy of Sciences' Summer Systematics Institute (SSI), with support from NSF's Research Experiences for Undergraduates (REU) initiative and the Academy's Robert T. Wallace endowment, has addressed critical issues like worldwide threats to biodiversity, the origins and diversification of life, phylogenetic systematics, and evolutionary biology.

SSI is a nine-week paid research internship at the state-of-the-art research facility and museum in San Francisco's Golden Gate Park. This world-renowned venue continues to offer undergraduates important insights into the contributions that museum-based research can make to issues facing society today. The program accommodates up to 10 undergraduate students. This internship is made possible by the National Science Foundation and a generous gift from the Robert T. Wallace Endowment for undergraduate research experiences. One internship in Biological Illustration is integrated with the SSI program.

This is a 40 hour per week position. Students selected will receive a \$600 per week stipend. Travel to and from San Francisco will be provided. Housing will be provided in dormitories in San Francisco, with details to be provided upon selection of interns

Levels: Freshmen, Sophomores, Juniors, & Seniors

Citizenship Requirements: US Citizens and Permanent Residents

Minimum GPA: Not specified



Deadline to Apply: February 1, 2020

[Apply](#)

## **CSP SUMMER UNDERGRADUATE RESEARCH PROGRAM**

**Various including the University of Minnesota, the University of California–Berkeley, Northwestern University, Cornell University, the University of Chicago, Washington University in St. Louis, and the University of South Dakota.**

This program is open to undergraduate students in science and engineering majors, preferably chemistry, chemical engineering, or materials science. Underrepresented and multicultural students are strongly encouraged to apply (e.g. female, genderqueer, transgender, Black or African American, Hispanic or Latinx, Native American or Alaskan Native, Native Hawaiian or other Pacific Islander, bisexual, gay, lesbian, queer, disability, or veteran of the US Armed Forces, Reserves, or National Guard).

Levels: Freshmen, Sophomores, Juniors and Seniors

Minimum GPA: Not Specified

Citizenship Requirements: US Citizens & Permanent Residents

Deadline: February 1, 2020

[Apply](#)

## **California State University Monterey Bay**

Spend 10 weeks in beautiful Monterey working on independent research under the supervision of a research mentor in projects related to Oceanography, Marine Biology and Ecology, Ocean Engineering, or Marine Geology.

Levels: Freshmen, Sophomores, Juniors, Non-graduating Seniors

Minimum GPA: Not Specified

Citizenship Requirements: US Citizens & Permanent Residents

Deadline to Apply: February 1, 2020

[Apply](#)

## **Carnegie Mellon**

Carnegie Mellon's Research Experiences for Undergraduates in Software Engineering (REUSE) program is an opportunity for undergraduate students to spend a summer working with some of the world's leading Software Engineering faculty researchers. A number of projects are available in diverse areas which may include automated bug repair, mining software repositories, green computing, requirements engineering, program analysis, programming languages, and usable programming tools. Accepted students will work closely with CMU faculty and researchers on research problems with the potential for publication and significant impact on the future practice of software engineering.

The program is interested in promoting research opportunities for students traditionally underrepresented in computer science, and for first- and second-year undergraduate students. Neither research experience nor advanced coursework in computer science or software engineering is required.

Levels: Freshmen, Sophomores, Juniors, and non-graduating Seniors

Minimum GPA: Not Specified

Citizenship Requirements: US Citizens & Permanent Residents

Deadline to Apply: February 1, 2020

[Apply](#)

## **CORNELL UNIVERSITY**

Now in its 18th year **Boyce Thompson Institute (BTI)** at Cornell University, and the USDA provide an excellent opportunity to gain research experience and explore if a scientific career is right for you. Currently we offer positions to outstanding students interested in plant science research and bioinformatics.

Accepted students join an international community of scientists and students in the pursuit of scientific discovery, learn valuable research skills, and attend seminars and

workshops to learn from leaders in fields such as: Biology, Biochemistry, Biotechnology, Genetics and Genomics, Bioinformatics, Molecular Biology.

Levels: Freshmen, Sophomores, Juniors, & Non-Graduating Seniors

Citizenship Requirements: US Citizens & Permanent Residents

Minimum GPA: Not Specified

Deadlines to Apply: February 1, 2020

**Apply**

## **UNIVERSITY OF GEORGIA**

Hands-on research in Genomics, Proteomics, Metabolomics, Glycomics and Computational Biology will bring participants recruited nationally from underrepresented groups to the University of Georgia campus for 10 weeks in the Summer of 2020. The first week involves lab safety training, some workshops, and the beginning of a sequence luncheon seminars on current research at UGA and bioethics. The remainder of the time throughout the summer is spent in the laboratory working on an individual research project. REU participants present their research as a poster and oral presentation at the end of the summer.

Levels: Freshmen, Sophomores, Juniors and non-graduating seniors

Minimum GPA: Not Specified

Citizenship Requirements: US Citizens & Permanent Residents

Deadline: February 1, 2020

## **Weill Cornell Medicine Medical College**

The Travelers Summer Research Fellowship Program is designed to give 25 premedical students deeper insights into the field of medicine, including issues that greatly affect the health of traditionally underserved groups. Through the experiences of laboratory or clinical research, the student learns how one pursues a specific research problem under the supervision of a faculty member, thus providing an early education

into basic research techniques that could be applicable to any area of medicine. A lecture series explores topics in cardiovascular physiology, exposing the students to basic science concepts that are relevant to a more specific understanding of hypertension and cardiovascular disease, both of which are major problems in minority communities. The summer fellows attend a series of talks by minority physicians about various medical specialties, addressing issues of concern in these physician's daily work plus views of the bigger picture in health care to minority communities. Shadowing physicians provide further exposure to the clinical facets of medicine. Students in the summer program receive information on the medical school admissions process, and counseling on financial planning for medical school and how to examine the financial aid package.

Levels: Juniors and above

Minimum GPA: Not specified

Citizenship Requirements: US Citizens & Permanent Residents

Deadline: February 1, 2020

**Apply**

## **Ma'ayan Laboratory at the Icahn School of Medicine at Mount Sinai in New York City**

### **Summer Research Training Program in Biomedical Big Data Science**

The 2020 Summer Research Training Program in Biomedical Big Data Science is a **research intensive ten-week training program for undergraduate and graduate students** interested in participating in cutting edge research projects aimed at solving data-intensive biomedical problems. Summer fellows training in the **Ma'ayan Laboratory at the Icahn School of Medicine at Mount Sinai in New York City** will conduct faculty-mentored independent research projects in the following areas: **data harmonization, machine learning, cloud computing and dynamic data visualization.**

Levels: Freshmen, Sophomore, Junior, Seniors and Masters students

Minimum GPA: Not Specified

Citizenship Requirements: US Citizens & Permanent Residents

Deadline: February 1, 2020

**Apply**

## **MICHIGAN STATE**

iCER ACRES is a 10-week summer Research Experience for Undergraduates (REU) in computational and data science. This REU is coordinated by Michigan State University's Department of Computational Mathematics, Science and Engineering (CMSE), in partnership with the Institute for Cyber-Enabled Research (iCER).

Research projects provided through iCER ACRES focus on the development and enhancement of algorithms, models, and software for applications in multiple research areas that require high-performance computing resources. Research areas include: computational chemistry, biology, astrophysics, mathematics, big data science, and computational electromagnetics.

Applicants must have completed at least two semesters of calculus and programming by May 2020. AP courses and self-study are acceptable ways of meeting the minimum calculus and programming requirement

Levels: Freshmen, Sophomores, Juniors & Non-Graduating Seniors

Minimum GPA: 3.0

Citizenship Requirements: US Citizens & Permanent Residents

Deadline to Apply: February 1, 2020

**Apply**

## **University of Michigan**

The University of Michigan Interdisciplinary REU Program (Research Experiences for Undergraduates) in the Structure and Function of Proteins is designed to provide undergraduate students with a 10 week research experience in the areas of biochemistry, biophysics, cheminformatics, computational chemistry, enzymology, marine biology, molecular biology and plant biology. The research projects featured in this program all involve studies of the structure and function of proteins.

REU Faculty Mentors represent the departments of Biochemistry; Chemistry; Medicinal Chemistry; Molecular, Cellular and Developmental Biology; Pathology, Pharmacology and Pharmaceutical Sciences. Students from groups that are historically underrepresented in graduate education in STEM (science, technology, engineering and mathematics) disciplines, including first-generation college students and US military veterans.

Levels: Freshmen, Sophomores, Juniors & Non-Graduating Seniors  
Minimum GPA: Not Specified  
Citizenship Requirements: US Citizens & Permanent Residents  
Deadline to Apply: February 1, 2020

**Apply**

## **MAYO CLINIC**

### **Mayo Clinic Summer Undergraduate Research Fellowship**

Program Description: The Summer Undergraduate Research Fellowship (SURF), sponsored by Mayo Clinic Graduate School of Biomedical Sciences, offers a great way to build your skills as a young scientist or test your inclinations toward research.

Levels: Sophomores & Juniors  
Minimum GPA: 3.0 & Above  
Citizenship Requirements: UC Citizens and International Students are also eligible  
Deadline: February 1, 2020

**Apply**

## **UNIVERSITY OF PENNSYLVANIA**

*Penn's Laboratory for Research on the Structure of Matter will provide a summer research experience for up to twenty students throughout colleges and universities in the United States. Students will work with a faculty member on a materials research project in chemistry, chemistry, physics, biochemistry, biophysics, materials science or engineering.*

Levels: Freshmen, Sophomores, Juniors and Seniors  
Citizenship Requirements: US Citizens & Permanent Residents  
Minimum GPA: Not Specified  
Deadline to Apply: February 1, 2020

**Apply**

## **ROCKEFELLER UNIVERSITY**

The Rockefeller University Summer Undergraduate Research Fellowship (SURF) program provides a unique opportunity for undergraduates to conduct laboratory research. SURF students work with leading scientists in a broad range of areas including biochemistry; structural biology and chemistry; molecular, cell and developmental biology; immunology; virology and microbiology; neuroscience; physics; and mathematical biology.

Levels: Sophomores & Juniors

Minimum GPA: Not Specified

Citizenship Requirements: US Citizens & Permanent Residents

Deadline to Apply: February 1, 2020

[Apply](#)

## **UNIVERSITY OF ROCHESTER**

The Summer Scholars Program is aimed at providing research opportunities in all aspects of Biological or Biomedical Research to undergraduates may be considering applying to graduate (PhD) programs. Matriculated sophomores and juniors that are US citizens, permanent resident aliens or foreign students with visas from their host institutions.

Levels: Sophomores and Juniors

Citizenship Requirements: US Citizens, Permanent Residents or Foreign students with visas from their host institutions

Minimum GPA: Not specified

Deadline to Apply: February 1, 2020

[Apply](#)

## **West Virginia University**

The objectives of West Virginia University's REU Site are to :

1. provide authentic research opportunities for students majoring in chemistry or biochemistry and attending predominantly undergraduate institutions;
2. involve participants in research projects that benefit society, either directly or indirectly;
3. improve participant understanding of the research enterprise (from project inception, attainment of funding, to research completion, and dissemination of results); and
4. retain participants within the chemistry/biochemistry major and encourage them to continue to post-baccalaureate opportunities

Levels: Freshmen, Sophomores, Juniors, and Seniors

Minimum GPA: 2.8

Citizenship Requirements: US Citizens & Permanent Residents

Deadline to Apply: February 2020

**Apply**

## **ROSETTA COMMONS**

The program begins with one week of Rosetta Code School where you will learn the inner details of the Rosetta C++ code and community coding environment, so you are fully prepared for the rest of the summer! Then students will spend the rest of the summer partif hands-on research in a molecular modeling and design laboratory, developing new algorithms and discovering new science. Students Majoring in computer science, engineering, mathematics, chemistry, biology, and/or biophysics with an interest in graduate school.

Application Opens: November 2020

Levels: Sophomores & Juniors

Minimum GPA: Not Specified

Citizenship Requirements: US Citizens & Permanent Residents

Deadline: February 1, 2020

**Apply**



## **Stanford University**

The Stanford Summer Research Program is an umbrella program that hosts students who are funded through various sources, including the Amgen Scholars Program, the Stanford Genetics Department, and the Stanford Medicine Dean's Office.

Levels: Sophomores, Juniors, and non Graduating Seniors

Citizenship Requirements: US Citizens, Permanent Residents, and DACA Eligible.

Minimum GPA: 3.0 to 3.2 depending on funding source

Deadline to Apply: February 1st 2020

[Apply](#)

## **STANFORD UNIVERSITY**

Stanford's Canary Cancer Research Education Summer Training is a world-class research center dedicated to early cancer detection. To train the next generation of interdisciplinary scientists, we offer a unique summer research training opportunity for undergraduate students, namely, the Canary Cancer Research Education Summer Training (CREST) Program. Funded by the National Cancer Institute (NCI), the program offers a 10-week research experience in one of our state-of-the-art labs.

Levels: Freshmen, Sophomores, Juniors, and Seniors

Citizenship Requirements:

Minimum GPA: Not Specified:

Deadline to Apply: February 1, 2020

[Apply](#)

## **SETI Institute**

The SETI Institute, a non-profit private scientific research institution located in California's Silicon Valley, invites students to apply for a summer Research Experience for Undergraduates program for highly motivated students interested in astronomy, astrobiology, and planetary science research. Participants will work with scientists at the SETI Institute and at the nearby NASA Ames Research Center on projects spanning the field of astrobiology, from microbiology to observational astronomy.

Levels: All

Citizenship Requirements: US Citizens and Permanent Residents

Minimum GPA: No Minimum GPA

Deadline to Apply: February 1, 2020

[Apply](#)

## **University of Pennsylvania and Washington University in St. Louis**

**The Center for Engineering Mechanobiology** seeks motivated undergraduate students for its Research Experiences for Undergraduates (REU) program for summer 2020. Students participate in 10-week, on-campus programs in Philadelphia or St. Louis, working in research groups at the University of Pennsylvania and Washington University in St. Louis. Students are matched to projects within a research group based on their interests, educational background, and previous research experience.

### **Research Areas include:**

- molecular biology
- cell and tissue mechanics in plants and animals
- bioengineering
- biochemistry and biophysics
- computational biology
- biomedical devices
- nanoscale science and engineering

Levels: Juniors & Seniors

Citizenship Requirements: US Citizens & Permanent Residents

GPA: Not Specified

Deadline to Apply: February 1, 2020

[Apply](#)

## **JACKSON LABORATORY**

The Summer Student Program is available at The Jackson Laboratory in Bar Harbor, Maine and The Jackson Laboratory for Genomic Medicine in Farmington, Connecticut. Outside the laboratory, there is much to explore. Depending on the location, students can visit the sights of Boston, New York, or the trails and vistas of Acadia National Park. The Summer Student Program is designed for students who want to immerse themselves in genetics and genomics research. It emphasizes laboratory discovery, communication of knowledge, and professional growth.

Levels: Freshmen, Sophomores, Juniors, Seniors

Citizenship Requirements: US Citizens & Permanent Residents

Minimum GPA: Not Specified

Deadline to Apply: February 2, 2020

**Apply**

## **YALE**

BioMed Amgen Scholars Program is a research-intensive summer training program in biomedical research for undergraduate students who plan to obtain a PhD or MD-PhD in the biomedical sciences. The program particularly encourages students who are members of groups underrepresented in the sciences, who are the first in their families to college, who are from inner city or rural communities, or who have grown up with financial or other disadvantage to apply. Students must have completed one semester of college-level biology, chemistry or physics at the time of application. Students should be interested in pursuing an MD or MD-PhD.

Levels: Rising Juniors or Seniors

Citizenship Requirements: US Citizens & Permanent Residents

Minimum GPA: 3.2

Deadline to Apply: February 3, 2020

**Apply**

## **CAL POLY POMONA**

**Cal Poly Pomona's Big Data Security and Privacy** Research Experience for Undergraduates (REU) program engages undergraduate students in big data security and privacy research, particularly on genomic data privacy, secure multiparty cloud computation and hybrid data center security. This program provides students with an immersive research environment and we teach students research skills through training sessions, hands-on experiments and interactions with experienced researchers. The interdisciplinary nature of this site exposes students to different perspectives of big data security, from theory to application. The faculty members have exceptional expertise in cybersecurity research enabling them to provide high quality REU activities in all three components

Students have opportunities to explore the state of the art in big data analytics, medical data security, privacy preserving techniques, security of machine learning models, and software defined network security. Students will learn a variety of practical skills in various computing environments, such as CUDA for general-purpose GPU programming, and a student-run data center. *The program is looking for Computer Science, Computer Information Systems, Computer Engineering and other related majors.*

Levels: Freshmen, Sophomores, Juniors, and non-graduating Seniors

Minimum GPA: 3.0

Citizenship Requirements: US Citizens & Permanent Residents

Deadline to Apply: February 3, 2020

**Apply**

## **University of California at Irvine**

UC Irvine's Summer Undergraduate Research Fellowship (SURF) program offers undergraduate and master's diversity students an opportunity to work closely with faculty mentors on research projects and provides an intense course of graduate preparation workshops. The program, which is designed for students who plan to

pursue a Ph.D. or M.F.A. degree and enter academic careers, provides the tools needed to facilitate application, admission, and enrollment to graduate school. The SURF program is open to virtually all academic fields at UC Irvine.

Levels: Sophomores, Juniors, Seniors and Master's Students

Citizenship Requirements: U.S. citizens, permanent residents, AB540 eligible

Minimum GPA: 3.0

Deadline to Apply: February 5, 2020

[Apply](#)

## UNIVERSITY OF WASHINGTON

The Doris Duke Conservation Program at the University of Washington is an eight-week, two-summer experience immersing students in conservation practice. Applicants should be transferring to a four year school in Fall 2020

Levels: Freshmen & Sophomores

Minimum GPA: No minimum GPA

Citizenship Requirements: US Citizens & Permanent Residents, Dreamers and DACA students are encouraged to apply

Deadline: February 5, 2020

[Apply](#)

The **CatResDev REU at Penn Chemistry** will offer undergraduates (UGs) with limited previous experience in research exposure, including students from underrepresented minority (URM) backgrounds. This site will provide projects in the areas of catalysis and molecular dynamics with cross-over into the methods associated with [high throughput experimentation \(HTE\)](#) while learning the fundamentals of success in science via training, mentoring, and industrial partnerships.

Levels: Sophomores and Juniors Minimum GPA: 3.0

Citizenship Requirements: US Citizens & Permanent Residents

Deadline to Apply: February 5, 2020

[\*\*Apply\*\*](#)

## **UNIVERSITY OF CALIFORNIA AT SANTA CRUZ**

The Doris Duke Conservation Scholars Program at UC Santa Cruz exposes early-career college students to the field of environmental conservation through field research, leadership and professional training. This is a two summer program that begins with an eight-week, paid, intensive summer course integrating conservation design, leadership and research

The program is looking for 20 passionate, creative undergraduate students from any major, currently in their freshman or sophomore years or with at least two more years of college left.

Levels: Freshmen & Sophomores

Minimum GPA: Not Specified

Citizenship Requirements: US Citizens & Permanent Residents, and Dreamers

Deadline: February 5, 2020

**Apply**

## **SUMMER HEALTH PROFESSIONS EDUCATION PROGRAM WITH SITES INCLUDING HOWARD, UCLA, AND THE UNIVERSITY OF WASHINGTON**

The Summer Health Professions Education Program (SHPEP) is a free summer enrichment program focused on improving access to information and resources for college students interested in the health professions. SHPEP's goal is to strengthen the academic proficiency and career development of students underrepresented in the health professions and prepare them for a successful application and matriculation to health professions schools.

Levels: Freshman and Sophomores

Minimum GPA: 2.5

Citizenship Requirements: an individual granted deferred action for childhood arrivals (DACA) status by the U.S. Citizenship and Immigration Services OR a U.S. citizen, a permanent resident

Deadline: February 5, 2020

**Apply**

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The Summer Health Professions Education Program (SHPEP) is a free summer enrichment program focused on improving access to information and resources for college students interested in the health professions. SHPEP's goal is to strengthen the academic proficiency and career development of students underrepresented in the health professions and prepare them for a successful application and matriculation to health professions schools.

Levels: Freshman and sophomores

Minimum GPA: 2.5

Citizenship Requirements: an individual granted deferred action for childhood arrivals (DACA) status by the U.S. Citizenship and Immigration Services OR a U.S. citizen, a permanent resident

Deadline: February 5, 2020

**Apply**

## **Various including Rice University, Arizona State University, and Stanford**

### **BioXFEL Summer Undergraduate Research Experience (BESURE)**

Program Description: BioXFEL is a National Science Foundation Science and Technology Center (STC) that focuses on promoting and advancing the study of Biological molecules using X-ray Free Electron Lasers (XFELs). A summer internship is the best way to get started in this new and exciting field. BioXFEL offers Summer Research Internships to highly

qualified undergraduate and postgraduate students with backgrounds in physics, chemistry, biochemistry, mathematics, computer science and all related fields. All applicants should be interested in pursuing a career in research and MUST be US citizens or US Nationals. Women and minorities underrepresented in STEM fields are strongly encouraged to apply.

Levels: Freshman, Sophomores, Juniors, and Seniors.

Minimum GPA: Not Specified

Citizenship Requirements: US Citizens & Permanent Residents

Deadline: February 7, 2020

[Apply](#)

### **CCHF Chemistry Summer Undergraduate Research**

The Chemistry Summer Undergraduate Research Program is a program for undergraduate students majoring in chemistry or chemical engineering, interested in conducting supervised summer research. The program is supported by the Center for Selective C-H Functionalization (CCHF), which is a network of 23 academic and industrial research laboratories at 15 partner institutions throughout the country. The CCHF is one of eight National Science Foundation (NSF) funded Centers for Chemical Innovation CSURP is a program for undergraduate students who are majoring in chemistry or chemical engineering and are interested in conducting supervised summer research. The program is supported by the NSF-funded Center for Selective C-H Functionalization (CCHF),

Levels: all levels. No previous research experience is required but students should express an interest in the field of C–H Functionalization.

Minimum GPA: Not Specified

Citizenship Requirements: US Citizens & Permanent Residents

Deadline: February 8, 2020

[Apply](#)



## **University of Illinois Urbana Champaign**

Train and perform research at the forefront of biomedicine using advanced imaging and microscopy technologies at Discoveries in Bioimaging, a 10-week, NSF-funded summer research experience for undergraduate students.

Levels: Freshman, Sophomores, Juniors & Non-graduating Seniors

Minimum GPA: 3

Citizenship Requirements: US Citizens & Permanent Residents

Deadline: February 10, 2020

[Apply](#)

## **University of Illinois at Urbana-Champaign**

The University of Illinois at Urbana-Champaign offers a summer research program that provides undergraduate students from populations underrepresented in graduate study at Illinois with an opportunity to explore careers in research. The program at Illinois provides students with an experience that will help strengthen their knowledge, skills, and understanding of graduate school.

Since 1986, Summer Research Opportunities Program (SROP) at Illinois has brought talented undergraduate students from across the US and its territories, such as Puerto Rico, to our campus as an introduction to graduate study, research, and the admission process

Levels: Juniors and non-graduating Seniors

Citizenship Requirements: US Citizens, Permanent Residents, or DACA

Minimum GPA: 3.0

Deadline to Apply: February 10, 2020

[Apply](#)

## **Ohio State University**

The Summer Research Opportunities Program (SROP) at Ohio State is designed to help historically underrepresented students explore opportunities for graduate study and academic careers. Over the course of eight weeks during the summer, Ohio State SROP participants will conduct research with a faculty mentor on a topic of mutual interest, and participate in activities crucial to preparation for graduate school, including workshops on research skills, seminars on topics related to graduate education, and professional development events. At the end of the summer program, participants present their research at a campus summary conference and a regional conference.

Levels: Sophomores & Juniors

Minimum GPA: 3.0

Citizenship Requirements: US Citizen

Application Deadline: February 10, 2020

**Apply**

## **RENUWIT'S RESEARCH EXPERIENCE FOR UNDERGRADUATES (REU) PROGRAM AT STANFORD UNIVERSITY, UC-BERKELEY, COLORADO SCHOOL OF MINES, AND NEW MEXICO STATE UNIVERSITY**

ReNUWIt's Research Experience for Undergraduates (REU) Program engages undergraduate students in ReNUWIt faculty's research labs, under the mentorship of ReNUWIt postdocs and graduate students. Participants learn laboratory/field techniques, are immersed in ReNUWIt's collaborative and interdisciplinary culture, and conduct meaningful research in state-of-the-art facilities. REU participants also interact directly with ReNUWIt faculty and peers, receive professional development training, and experience ReNUWIt's systems-level approach to addressing the nation's water issues. Additional program requirements include meetings, oral presentations, a short written report, and summary slides and/or posters.

Apply to spend 9-10 weeks this summer on a mentored, independent research project in areas such as:

- Distributed Urban Water Systems

- Energy-positive Wastewater Treatment and Resource Recovery
- Direct Potable Reuse
- Unit Process Wetlands and Riparian Zones
- Smart Managed Aquifer Recharge Technologies
- Distributed Stormwater Treatment Unit Processes
- Decision Support Tools for Utilities
- Visioning, Assessment, and Implementation Tools for Regional and Municipal Planning
- Technology Diffusion Pathways

Levels: Sophomores, Juniors, & non-Graduating Seniors

Citizenship Requirements: US Citizens & Permanent Residents

GPA: Not Specified

Deadline to Apply: February 10, 2020

**Apply**

## **UNIVERSITY OF PITTSBURGH**

### **TECBio REU @ Pitt : May 26 - July 31, 2020**

Simulation and Visualization of Biological Systems at Multiple Scales REU program is a 10-week summer program that will provide a challenging and fulfilling graduate-level research experience to undergraduate students. Housing, travel, and a stipend allowance will be provided

Students will receive classroom training in topics pertinent to the emerging field of computational biology, such as computational structural biology, cell and systems modeling, computational genomics, and bioimage informatics, in addition to a wide variety of theoretical and experimental research projects.

Levels: Freshman, Sophomores, Juniors, and non graduating seniors

Minimum GPA: not specified

Citizenship Requirements: US Citizens & Permanent Residents

Deadline: February 11, 2020

**Apply**

## **CAL STATE SAN BERNARDINO**

The principal goal of the REU in mathematics at California State University at San Bernardino is to provide promising undergraduate math majors with a meaningful, exciting and challenging experience in mathematical research. During the eight-week residential program students will carry out guided independent and collaborative research. Research problems will come from the fields of Geometry and Knot Theory, and will be chosen in consultation with a faculty mentor. The program culminates with participants writing research papers based on their work, and presenting their results at a poster session as well as a formal seminar.

Levels: Freshmen, Sophomores, Juniors, and non-graduating Seniors

Citizenship Requirements: US Citizens and Permanent Residents

Minimum GPA: Not specified

Deadline to Apply: February 12, 2020

**Apply**

## **PEPPERDINE**

### **Summer Undergraduate Research in Biology**

Pepperdine University will host the Summer Undergraduate Research Program in Biology (SURB) developed specifically for students who are interested in pursuing a career in biological research, science education, environmental science, or biotechnology. Pepperdine biology faculty will work closely with selected students in diverse areas of biological research. Successful applicants will be provided a generous stipend, on-campus housing, a unit of biology research credit, funding for travel to Malibu, and a budget for the purchase of research supplies. The program will begin with a 14-day research orientation workshop. During the workshop, students will be introduced to varied research tools and techniques and will partner with a faculty member to develop a project idea for their summer research.

Levels: Freshman, Sophomores, Juniors & Non-graduating Seniors

Minimum GPA: Not Specified

Citizenship Requirements: US Citizens & Permanent Residents

Deadline: February 12, 2020

**Apply**

## **UNIVERSITY OF ARKANSAS**

The Separations & Commercialization REU program at the University of Arkansas will offer research experiences in laboratories that are working towards the goals of improving separation efficiency and reducing separation processing costs to a diverse group of undergraduate students. Participants will interact with faculty and graduate students to plan and execute a 10-week research project. A unique component of this REU program is the commercialization assessment training (CAT) series that will prepare them to think about the potential commercialization of traditional hypothesis-driven research early in the process. Participants will have the opportunity to interact with industry leaders in the separation field through the CAT series, industrial mentorships, as well as industrial site visits locally and in Texas.

Levels: Freshmen, Sophomores, Juniors, and Seniors

Citizenship Requirements: US Citizens

Minimum GPA: Not Specified

Deadline to Apply: February 14, 2020

**Apply**

## **UNIVERSITY OF SOUTHERN CALIFORNIA**

This NSF-funded Research Experiences for Undergraduates (REU) program will support ten highly motivated and talented undergraduate students to conduct independent but guided research that focuses on Coastal Ocean Processes during an intensive 10-week program at the USC Wrigley Marine Science Center on Catalina Island, CA.

The program will provide students with hands-on research experience, training in laboratory and field methodologies, introductory lectures and special seminars in oceanography and marine science, academic and career advisement, professional development workshops, group activities and field trips to explore Catalina Island's unique ecosystems. This program will be especially beneficial for undergraduate

students with a strong interest in pursuing graduate school or a career in marine science and research.

Freshmen, Sophomores, Juniors , & Seniors

Citizenship Status: US Citizens & Permanent Residents

Minimum GPA: 3.25

Deadline to Apply: February 14, 2020

**Apply**

### **AMGEN SCHOLARS PROGRAM**

The Amgen Scholars Program is hosted at 13 educational institutions within the United States.

Applicants must be enrolled in an accredited four-year colleges or universities in the United States, Puerto Rico or other U.S. territories. Applicants should be must be interested in pursuing a PhD or MD/PhD.

Levels: Sophomores, Juniors, and Non-Graduating Seniors

Citizenship Requirements: U.S. citizens or U.S. permanent residents

Minimum GPA: 3.2

Deadline to Apply: February 1st

CalTech Deadline is February 15th

**Apply** : [amgenscholars.com](http://amgenscholars.com)

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Applicants must be enrolled in an accredited four-year colleges or universities in the United States, Puerto Rico or other U.S. territories. Applicants should be must be interested in pursuing a PhD or MD/PhD.

Levels: Sophomores, Juniors, and Non-Graduating Seniors

Citizenship Requirements: U.S. citizens or U.S. permanent residents

Minimum GPA: 3.2

Deadline to Apply: February 1st

CalTech Deadline is February 15th

**Apply** : [amgenscholars.com](http://amgenscholars.com)

## **VANDERBILT UNIVERSITY**

The Vanderbilt Institute for Nanoscale Science and Engineering (VINSE) brings ten students each summer to campus to work closely with VINSE faculty on research projects in cutting edge areas of nanoscale science and engineering. This summer program is funded by the National Science Foundation Research Experiences for Undergraduates (NSF-REU) program. Participation in the program provides students with a true interdisciplinary research experience in an environment where physicists, chemists, biologists, and all engineers collaboratively solve problems and create new scientific understanding.

Levels: Sophomores, Juniors, and non-graduating Seniors

Citizenship Requirements: U.S. citizens and permanent residents

Minimum GPA: Not specified

Deadline to Apply: February 15, 2020

**Apply**

## **UNIVERSITY OF ARKANSAS**

### **Physics Research Experience for Undergraduate Students**

Selected undergraduate students perform frontier research for 10 weeks during the summer of 2020 on experimental and theoretical projects in one of their chosen research areas: Nano-materials and Condensed Matter, Photonics, Lasers, and Quantum Optics, Soft Condensed Matter and Biophysics. Additional activities include social events jointly with other REU's, field trips to industrial labs, seminars on ethics, use of a research library, and technical writing and research presentations.

Levels: Freshmen, Sophomores, Juniors, and Seniors

Citizenship Requirements: US Citizens & Permanent Residents

Minimum GPA: 3.0

Deadline to Apply: February 15, 2020

[\*\*Apply\*\*](#)

### **Boston University**

The **BRITE REU at BU Bioinformatics** (Bioinformatics Research and Interdisciplinary Training Experience) focuses on computational and mathematical fundamentals of bioinformatics analysis through research projects in a broad range of topics, including gene regulatory networks, metabolic networks, analysis of microbial communities, synthetic biology, enzyme structure and function, machine learning methods for cancer subtype classification, and sequence analysis algorithms for identifying genetic variation

Levels: Sophomores, Juniors, & Seniors

Minimum GPA: Not Specified

Citizenship Requirements: US Citizens & Permanent Residents

Deadline: February 15, 2020 but admissions are made on a rolling basis apply early

[\*\*Apply\*\*](#)

### **CLEMSON UNIVERSITY REU**

The Research Experience for Undergraduates (REU) Program in biophysics is funded by the National Science Foundation to support ten highly qualified students to undertake interdisciplinary, supervised research projects at Clemson University, for a period of 10 weeks each summer. Students must be majoring in natural science (biological or physical science) or engineering.

Levels: Rising Sophomores, Juniors, and non-graduating Seniors

Minimum GPA: 3.2

Citizenship Requirements: US Citizens & Permanent Residents

Deadline to Apply: February 15, 2020

[\*\*Apply\*\*](#)

### **Cornell University**

#### **LSAMP Summer Research Experiences for Undergraduates**



**Program Description:** Description: a nine-week summer research opportunity (June 7-August 7, 2020) that provides undergraduate participants with the opportunity to work with distinguished faculty and staff as well as network with others in their field of interest. Stipend, on-campus housing and travel to Ithaca included.

Levels: Freshman, Sophomores, Juniors

Minimum GPA: 3

Citizenship Requirements: US Citizens & Permanent Residents

Deadline: February 15, 2020

**Apply**

## **HARVARD UNIVERSITY**

Harvard has 7 REU programs that are coordinated through the John A. Paulson School of Engineering and Applied Sciences. Students spend their summers working with faculty. The program provides professional development activities designed to foster interest in graduate school and careers in research.

Levels: Freshmen, Sophomores, Juniors, and Seniors  
Minimum GPA: Not specified  
Citizenship Requirements: 5 of Harvard's programs require that candidates be US Citizens or Permanent Resident's. However the Wyss Institute for Biologically Inspired Engineering and the Rowland Institute at Harvard will accept international students.

International students are encouraged to visit this link to verify their eligibility.

<http://www.hio.harvard.edu/visa-types>

Deadline to Apply: February 15, 2020

**Apply**

## **The Ohio State University BUCKEYE REU Program**

The Ohio State University Department of Biomedical Engineering's BUCKEYE REU program allows students to get hands on research and professional development experience during our 10-week on-site summer research program. The opportunity is for students pursuing a STEM major, with an interest in biomechanics and mechano-biology (BMMB). The growing interdisciplinary field of BMMB unites an understanding of the complex and unusual mechanical behavior and response exhibited

by biological systems with an increasing number of applications in healthcare. This experience will allow students to participate in research that can benefit human health.

Levels: Sophomores, Juniors & Non-Graduating Seniors:

Minimum GPA: 3.0

Citizenship Requirements: US Citizens & Permanent Residents

Deadline to Apply: February 15

**Apply**

## **UC SAN DIEGO REU IN BIOMATERIALS**

The Jacobs School of Engineering (JSOE) at UC San Diego hosts a summer Research Experience for Undergraduates (REU) summer program in Biomaterials. The objectives of the program are to train undergraduates in basic research through challenging biomaterial-related engineering projects performed with research mentors from engineering departments across JSOE. Research areas include tissue engineering and 3D printing, bio-inspired biomaterials, biomaterial-stem cell interaction, nanoparticles and drug delivery.

Levels: Freshmen, Sophomores, Juniors & Non-Graduating Seniors

Citizenship Requirements: US Citizens & Permanent Residents

Deadline to Apply: February 15, 2020

**Apply**

## **TEXAS A & M**

This REU summer research program focuses on interdisciplinary projects in sustainable chemistry. Participants become full members of a research group, carrying out fundamental research on topics that span the chemical sciences. Students will participate in a Sustainable Chemistry workshop and professional development focused on Science Communication.

Levels: Freshmen, Sophomores, Juniors, and Non-Graduating Seniors

Citizenship Levels: US Citizens & Permanent Residents

Minimum GPA:

Deadline to Apply: February 15, 2020

**Apply**

*This is a competitive program open to undergraduate chemistry majors (or closely related fields) enrolled in 4-year U.S. colleges and universities other than Texas A&M who have completed at least their first year with a 3.0 GPA or better with strong letters of recommendation. Students must have completed at least 2 semesters of college chemistry including laboratories*

**Georgia Tech (GT), University of Georgia (UGA), University of Puerto Rico at Mayagüez (UPRM), and University of Wisconsin-Madison (UW)**

Every summer, CMaT provides its Research Experience for Undergraduates (REU) program. The REU summer program funds 10-15 undergraduate students to work in CMaT labs at Georgia Tech (GT), University of Georgia (UGA), University of Puerto Rico at Mayagüez (UPRM), and University of Wisconsin-Madison (UW).

Levels: Not Specified

Minimum GPA: Not Specified

Citizenship Requirements: US Citizens & Permanent Residents

Deadline: February 16, 2020

**Apply**

**University of Pittsburgh  
iSchool Inclusion Institute (i3)**

The i3 admissions process is competitive, however, students are evaluated for qualities beyond GPA. We seek students who have shown academic promise, including those who have demonstrated improvement over their college careers. Students from all majors and disciplines are encouraged to apply. The information sciences are interdisciplinary and connect with many other fields of study. Past i3 Scholars have majored in information science, computer science, psychology, sociology, public policy, communication, business, economics, public health, history, English, and engineering, among others

Levels: Freshman, Sophomores, Juniors, and Non-graduating seniors

Minimum GPA: Not Specified

Citizenship Requirements: US Citizens & Permanent Residents

Deadline: February 17, 2020

## **TEXAS A & M**

### **Oceanography REU**

The Department of Oceanography and the Geochemical and Environmental Research Group (GERG) at Texas A&M University are proud to announce an REU program that will focus on "Observing the Ocean: hypoxia, harmful algae, oil spills and ocean acidification." Ten students will be introduced to new ocean observing technologies and will use data from ocean observatories, buoys and time series to investigate the ocean. Students will work with faculty and staff mentors in laboratories and on seagoing projects to acquire the analytical skills for multidisciplinary oceanographic research.

Levels: Sophomores & Juniors

Minimum GPA: 2.75

Citizenship Requirements: US Citizens & Permanent Residents

Deadline to Apply: February 17, 2020

[Apply](#)

## **UNIVERSITY OF CALIFORNIA AT BERKELEY**

UC BERKELEY's TRANSFER TO EXCELLENCE Transfer-to-Excellence Research Experiences for Undergraduates (TTE REU), a competitive merit-based program, seeks to inspire California community college students through research at UC Berkeley so that they will ultimately transfer and complete their Bachelor's degree in science and engineering. The TTE REU program is a residential program providing nine-weeks of hands-on research experiences in the laboratories of UC Berkeley professors. This program is jointly funded by an NSF Site award and the Center for E3S.

**This program is limited to students attending a community college that plan to apply for transfer admission to a baccalaureate program in science or engineering.**

GPA: 3.25+ GPA in science, engineering, & math courses

Citizenship Requirements: U.S citizen, national, or permanent residents

Enrolled at a California community college; Completed 2 Calculus courses by June 2020; Completed 3 Science or Engineering courses, one of which has a laboratory component by June 2020; Plan to return to a California community college in Fall 2020

**Application Deadline: February 20, 2020.**

## **AUBURN UNIVERSITY**

### SMART UAVs REU

Summer research opportunities on smart UAVs is an excellent opportunity to explore the exciting frontier of unmanned technology. Up to twelve students will be selected to participate at Auburn University. They will form teams who will compete to design the best algorithms to autonomously fly 6 to 12 UAVs on a limited air field.

Levels: Sophomores, Juniors, and Seniors

Minimum GPA: Not Specified

Citizenship Requirements

Deadline to Apply: February 28, 2020

**Apply**

## **GEORGIA INSTITUTE OF TECHNOLOGY**

Founded in 1992 by Dr. Gary May, a former Dean of the Georgia Tech College of Engineering, the Summer Undergraduate Research in Engineering/Sciences (S.U.R.E.) program is committed to increasing the number of qualified students who are traditionally under-represented in STEM fields. These include but are not limited to students from racial/ethnic minority groups, women, or first generation college students.

Levels: Freshmen, Sophomores, Juniors, and Seniors

Minimum GPA: 2.75

Citizenship Requirements: U.S. Citizen or permanent residents only

Deadline to Apply: February 28, 2020

**Apply**

## **UNIVERSITY OF PUERTO RICO-RIO PIEDRAS**

The PR-CLIMB REU Site at the University of Puerto Rico-Río Piedras seeks to provide undergraduate students a research experience that capitalizes on the academic and professional strengths of the university and Puerto Rico at large. As a minority-serving institution the site will offer a unique experience to a diverse set of students recruited from 2-year and 4-year institutions. In this nine-week program students will engage in fundamental studies of materials and biomolecules for potential applications in water purification, energy storage, sensing, drug design, and drug delivery. Students will also be exposed to a variety of techniques in seminars and seven hands-on workshops that will develop their skill sets in the biotechnology and pharmaceuticals fields.

The PR-CLIMB REU Site is designed to provide undergraduate students with high caliber interdisciplinary research experiences that will inspire interest in Chemistry graduate programs and also in the Puerto Rican biotechnology and pharmaceutical job markets as a viable career opportunity.

Levels: Sophomores, Juniors & Seniors

Citizenship Requirements: US citizenship or permanent residency

Minimum GPA: 3.0

Deadline to Apply: February 28, 2020

**Apply**

## **Fred Hutchinson Cancer Research Center**

The Fred Hutchinson Summer Undergraduate Research Program [SURP] is an intensive, nine-week internship designed to provide research experience and mentorship for undergraduate students who are interested in biomedical research. Under the guidance of a faculty mentor, students will complete an independent research project and present their findings at a competitive poster session.

Students will be paired with a faculty mentor after selecting one of the following areas of interest: Basic Science, Human Biology, Public Health, Clinical Research, Vaccine and Infectious Diseases

Levels: Juniors and non-graduating seniors

Minimum GPA: Not Specified

Citizenship Requirements: US Citizens

Deadline: February 29, 2020

**Apply**

**March**



## ARIZONA STATE UNIVERSITY

The QESST Engineering Research Center offers undergraduates the opportunity to participate in solar energy research. Through work on the pilot line, students will:

- Have access to state-of-the-art facilities and gain experience directly relevant to industry, giving them the opportunity to demonstrate the commercial impact and relevance of their ideas by guiding them through the steps required to bring new ideas to commercialization;
- Bridge the gap between the typical “research” devices and commercial solar cells, allowing fabrication and analysis of technologies on commercial-size devices and commercial equipment;
- Work in a facility that allows new equipment or processes to be analyzed and assessed jointly with industry. Students will play a key role in this process.
- Partner with a local student participating in the Fulton Schools’ Solar Energy Research program.

Levels: Freshmen, Sophomores, Juniors & Non-Graduating Seniors

Minimum GPA: Not Specified

Citizenship Requirements: US Citizens & Permanent Residents

Deadline to Apply: March 1, 2020

**Apply**

## COLUMBIA UNIVERSITY

The Biostatistics Epidemiology Summer Training Diversity Program (BEST) was established to expand and diversify the behavioral and biomedical sciences’ workforce by introducing undergraduates from underrepresented populations to biostatistics and cardiovascular and pulmonary disease research. Students representing racial and ethnic minority groups, disadvantaged backgrounds, and students with disabilities join the Department of Biostatistics at Columbia University’s Mailman School of Public Health’s for eight weeks of research, training, academic and career planning, and social activities around New York City. All applicants must have completed one semester of college level calculus.

Levels: Freshman, Sophomores, Juniors & Non-Graduating Seniors

Minimum GPA: Not Specified

Citizenship Requirements: US Citizens & Permanent Residents

Deadline: March 1, 2020

**Apply**

## **UNIVERSITY OF TEXAS AT AUSTIN**

Cyberinfrastructure (CI) Research for Social Change Research Experience for Undergraduates (REU) at the Texas Advanced Computing Center is actively engaging 10 undergraduate students each summer for nine-weeks in solving real-world problems of national relevance, teaching them to not only be critical thinkers, but to be creative and reflective as well.

Students gain skills in advanced programming and problem solving and use the CI to conduct cutting-edge research in engineering, science, and computational medicine. Research projects emphasize advanced computing as a tool to power discoveries that will impact social change for future generations.

Levels: Freshmen, Sophomores, Juniors & Non-Graduating Seniors

Minimum GPA: Not Specified

Citizenship Requirements: US Citizens & Permanent Residents

Deadline to Apply: March 1, 2020

**Apply**

## **UNIVERSITY OF IOWA**

Interdisciplinary Evolutionary Sciences - Research Experiences for Undergraduates (REU)

The focus of this REU is training in evolutionary science, with students working on research projects across several disciplines. Three academic departments at the University of Iowa - Biology, Anthropology, and Earth and Environmental Sciences) will collaborate with the University of Iowa Museum of Natural History to offer research projects that span a range of topics, including evolution of behavior, origin of species, cancer evolution, evolution of sex, and paleontology. Study organisms span a large range of taxa, and include: crocodiles, insects, snails, fungi, human cancer cells, frogs, and conodonts. Students will work on one project and through interactions with their cohort will ultimately receive a broad exposure to evolutionary science

Levels: Rising Juniors & Rising Seniors

Minimum GPA 3.0

Citizenship Requirements: US Citizens & Permanent Residents

Deadline to Apply: March 15th

**Apply**

## **Northeastern University**

Site Name: Research Experiences for Undergraduates (REU) in the Department of Chemistry and Chemical Biology at Northeastern University

Program Description: This NSF-REU program offers interdisciplinary research opportunities in Biochemistry, Organic, Physical, Computational, and Analytical Chemistry laboratories with an overarching focus on the theme of Catalysis. Students will do research in a nurturing and vibrant academic setting and spend a summer enjoying all that the city of Boston has to offer.

Students will be paired with a Northeastern Chemistry faculty mentor and a graduate student mentor based on their stated research interests. These mentors will guide the student as they immerse themselves in full-time laboratory research over 10 weeks. Participants will attend research seminars presented by program faculty and invited speakers; academic and professional skills development workshops and panel discussions on topics such as research ethics, literature searching, graduate school; social activities and events with other members of the chemistry department or with students from other summer research programs at Northeastern; and field trips to pharmaceutical & biotech companies, or other research institutes in the Boston area. The REU program will conclude with a research symposium where students will orally present their research findings to the wider chemistry community.

*Applications are encouraged from students who are first generation college students, women, and students underrepresented in STEM.* Students should be majoring in chemistry, biochemistry, or other related disciplines

Levels: Freshman, Sophomores, Juniors, and non-graduating seniors

Minimum GPA: Not specified

Citizenship Requirements: US Citizens & Permanent Residents

Deadline: March 16, 2020

**Apply**

## **University of Pittsburgh Swanson School of Engineering**

The Pre-PhD scholars program at the University of Pittsburgh is a 9 week summer research internship that creates a pipeline for students who wish to pursue PhD degrees in engineering at the University of Pittsburgh. The Engineering Office of Diversity (EOD) identifies prospective students with a 3.5 or higher GPA as Pre-PhD Scholars. These STEM students from groups traditionally underrepresented in the STEM fields are recruited from institutions across the nation, and are assigned to Swanson School of Engineering faculty mentors who lead multidisciplinary teams in advanced research. At the end of the program, all students present their research findings to faculty members, staff and current students.

Scholars are placed in the admissions pipeline as candidates to the MS or PhD program at the Swanson School of Engineering. Students are paid \$3500 stipend, \$500 feeding subsidy and transportation to and from Pittsburgh is covered by the program.

Levels: Juniors, Seniors, & Recent Graduates

Citizenship Requirements: US Citizens & Permanent Residents

Minimum GPA 3.5

Deadline to Apply: March 18, 2020

**Apply**

## **NASA/CALTECH JET PROPULSION LAB**

The JPL Summer Internship Program offers 10-week, full-time, summer internship opportunities at JPL to undergraduate and graduate students pursuing degrees in science, technology, engineering or mathematics.

Levels: Freshman, Sophomores, Juniors, & Seniors

Minimum GPA: 3.0 GPA

Citizenship Requirements: US Citizens & Permanent Residents

Deadline: March 30, 2020

**Apply**



**November**

## **Carnegie Mellon**

Carnegie Mellon's Robotics Institute Summer Scholars (RISS) program is an eleven-week summer (June 1 to mid-August) undergraduate research program that immerses a diverse cohort of scholars in cutting-edge robotics projects that drive innovation and have real-world impact. Launched in 2006, RISS is among the best and most comprehensive robotics research programs for undergraduates in the world.

Undergraduates from both US and International Institutions are eligible to apply

*Applications will open on November 1st*

**Apply**

## **DUKE UNIVERSITY**

Duke ECE's Undergraduate Summer Research Program brings students from around the world into the research laboratories of the Department of Electrical and Computer Engineering each summer. These students work with a faculty member and their research group to tackle an innovative research project. Students admitted to the program receive a competitive monthly research stipend as well as arranged on-campus housing and a travel allowance.

Levels: Sophomores and Juniors

Minimum GPA: Not Specified

Citizenship Requirements: Domestic and international students

Deadline: Applications will open up in November

**Apply**

## **UNIVERSITY OF WISCONSIN – MADISON**

The University of Wisconsin-Madison Departments of Chemistry and Chemical and Biological Engineering, through support from the National Science Foundation, host an annual Research Experience for Undergraduates (REU) program focused on The Chemistry of Materials for Renewable Energy. Selected participants will spend 10 weeks conducting research on a renewable energy project in chemistry, chemical engineering, or biological engineering.

Levels: Freshmen, Sophomores, Juniors, Non-Graduating Seniors

Minimum GPA: Not Specified

Deadline to Apply: Application Opens in November 2020

[Apply](#)



**December**

## **UNIVERSITY OF CALIFORNIA AT DAVIS**

The NSF-funded Research Experiences for Undergraduates program in the UC Davis Physics Department will continue in summer 2020. During the 10-week program students work alongside our faculty and graduate students on ongoing research projects, providing a view of physics very different from typical coursework. Please note: APplicants must have completed at least one year of calculus-based physics

Levels: Sophomores, Juniors & Non-Graduating Seniors

Citizenship Requirements: All students are invited to apply regardless of Citizenship Status

Deadline to Apply: Not Specified

Application will open December 1, 2020

**Apply**

## **OREGON HEALTH & SCIENCE UNIVERSITY**

The OHSU Equity Research Program offers an exciting opportunity for diverse undergraduate college students to spend eight weeks working on research projects alongside faculty, scientists and graduate students. The program has a variety of tracks including Public Health, Medicine, and Biomedical Sciences, or Nursing in a clinical or community setting.

Levels: Freshmen, Sophomores, Juniors, and Non-graduating Seniors

Citizenship Requirements: US Citizens, Permanent Residents, and DACA eligible students

Deadline to Apply: December 20, 2020

**Apply**