Dear SCS faculty,

The NSF has a great program for supporting undergraduate research available to PIs and co-PIs of any NSF grant. The program is called the REU supplement program and it is a fantastic way to introduce budding computer scientists to your research area. I also strongly urge you to use REU supplement funds to reach a broader demographic than we typically admit into our PhD programs. I've personally supervised some amazingly talented first-generation college students, students from low-resource regional public universities, and students from under-represented minority groups. Some of these same students have won ACM student research competitions, authored top-tier conference papers, and gone on to the best PhD programs—including at CMU.

NSF REU supplements are awarded on a first-come first-serve basis. **Almost all proposals are funded as long as they are submitted before the money is gone. We strongly urge you to submit your proposal by the end of January.** Since there is so much interest nationally in diversity, equity and inclusion initiatives, I think there is a strong chance that the supplement money will run out earlier than it has in the past.

To help support REU supplement submission I've written an FAQ, provided sample budget, budget justifications, and project descriptions below. The text of this email is also available here.

Best,
Josh Sunshine
Research Experiences for Undergraduates in Software Engineering (REUSE) program director

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Sample project descriptions:
- Justine Sherry. A Clean-Slate Software-Defined Approach for Enabling Elastic Security.
- Josh Sunshine, Keenan Crane, Jonathan Aldrich. Declaratively CreatingSemantics-driven Visualizations.
- Brad Myers. Generalizable Procedure and Concept Learning from Multimodal Demonstrational Conversational Agents.
- RI faculty participating in RISS should email Rachel Burcin <rburcin@andrew.cmu.edu> for their template.

Sample budget ($ amount is out of date, see below)

Sample budget justification ($ amount is out of date, see below)

FAQ:

Q: How can I recruit students?

A: You can post the opportunity to your website, share on social media, and email colleagues at other institutions. Emailing colleagues at institutions without major research programs in computing (e.g. liberal arts colleges, HBCUs, regional public universities) can be especially fruitful.

In addition, you may be able to participate in one of the existing REU programs at CMU. These programs typically have large applicant pools shared among many faculty. They advertise to, recruit, and help with selection of students. Please email the program directors if you are interested in participating in one of these programs. The current SCS programs and the email contact are:

1. REUSE: Research Experiences for Undergraduate in Interdisciplinary Software Engineering (reuse@cs.cmu.edu)
2. Security and Privacy REUSE cohort (reuse@cs.cmu.edu)
3. Systems REUSE cohort (justines@cs.cmu.edu)
4. RISS: Robotics Institute Summer Scholars (rburcin@andrew.cmu.edu; jdolan@andrew.cmu.edu)
5. HCII Summer Undergraduate Research Program (dabbish@andrew.cmu.edu)

If you want to participate, but are in an area not covered by any of these REU programs, please reach out to me at sunshine@cs.cmu.edu. If your research is appropriate for undergraduates and are interested in working with undergr-represented students, I will work hard to find your project a good home in one of our REU programs.

Q: How much support does a REU supplement provide?

A: Each supplement can support a maximum of $10000 per student. Under most grants you can request up to two students per institution per grant ($20000). Large or expedition grants may be able to request more than two students. Contact your program manager for details. The funding is categorized as participant support and therefore not subject to overhead. There is a gap between the $10000 per student and the total cost of funding REU students as part of some REU programs. Ask the REU program coordinator (see above) about using central funds to meet this gap where appropriate.

Q: Where is the official NSF program solicitation?

A: The REU supplement program is described together with the REU site program (which funds 10 students per year and requires a much more elaborate proposal). The program is NSF #23-601 and available here:

https://new.nsf.gov/funding/opportunities/research-experiences-undergraduates-reu/nsf23-601/solicitation

In addition, CISE published a "Dear Colleague Letter" with additional advice for supplement writers.

Q: When can I use REU supplement funds?

A: The funds can be used during the summer or during the academic year. They can be spent anytime before the associated grant expires.

Q: What are the student eligibility requirements?
A: "Undergraduate student participants supported with NSF funds in either REU Supplements or REU Sites must be U.S. citizens, U.S. nationals, or U.S. permanent residents.
An undergraduate student is a student who is enrolled in a degree program (part-time or full-time) leading to a baccalaureate or associate degree. Students who are transferring from one college or university to another and are enrolled at neither institution during the intervening summer may participate. High school graduates who have been accepted at an undergraduate institution but who have not yet started their undergraduate study are also eligible to participate. Students who have received their bachelor's degrees and are no longer enrolled as undergraduates are generally not eligible to participate." [see Program solicitation]

Q: How can I spend supplement funds?
A: Supplement funds can be used to: pay stipends or wages for eligible undergraduate students, pay for housing, pay for travel to/from Pittsburgh, and provide meal allowances. It cannot be used for social events, dinners, swag, etc. It also cannot be used to support faculty or graduate students. Finally, the funded students must be conducting research that is related to the underlying NSF grant. It cannot be used for unrelated topics.

Q: Are CMU students eligible?
A: Yes, if they meet the eligibility criteria above.

Q: Are students on F-1/J-1 visas studying at CMU or another US institution eligible?
A: Unfortunately not.

Q: How competitive is the program?
A: Almost all of the proposals are funded as long as they are submitted before the money runs out. It doesn't matter much what you write in your project description as long as it is a good faith effort.

Q: When should I apply?
A: Proposals can be submitted anytime starting in December. They are funded on a first-come first-serve basis. To ensure that you are not too late, please submit by the end of January.

Q: Is my research appropriate for an REU?
A: We encourage you to consider including students early in their careers. You may find that such students have taken only 2–4 computer science courses. They may not have taken a course in your area of specialty. Most will never have done research before. Some projects will not be appropriate for these students. However, many research areas have more accessible components. Perhaps there is engineering, data collection, or experimental work that is accessible, useful, and educational. Coming up with an appropriate project often requires

creativity and empathy. If you have an idea, but are not sure if it's a good fit, consider reaching out to one of the REU program directors (see above) and asking for feedback.