FUNDING OPPORTUNITIES IN COMPUTER SCIENCE

Government Funders

National Science Foundation - The Directorate for Computer and Information Science and Engineering

The Directorate for Computer and Information Science and Engineering has four goals:

- To enable the U.S. to uphold a position of world leadership in computing, communications, and information science and engineering
- To promote understanding of the principles and uses of advanced computing, communications and information systems in service to society
- To support and provide advanced cyberinfrastructure to enable and accelerate discovery and innovation across all disciplines
- To contribute to universal, transparent and affordable participation in an information-based society.
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To achieve these, CISE supports investigator initiated research in all areas of computer and information science and engineering, fosters broad interdisciplinary collaboration, helps develop and maintain cutting-edge national computing and information infrastructure for research and education, and contributes to the development of a computer and information technology workforce with skills essential for success in the increasingly competitive global market.

CISE is organized in four divisions: the Division of Advanced Cyberinfrastructure (ACI); the Division of Computing & Communication Foundations (CCF); the Division of Computer and Network Systems (CNS); and the Division of Information and Intelligent Systems (IIS). Each division is organized into a small number of programs that are responsible for managing a portfolio of grants and proposal competitions within a broad area of research and education. While individual program directors may be designated as the point of contact for specific sub-disciplines, collaboration takes place within each program, across each division, and between divisions and directorates.
All CISE Programs listed here: https://www.nsf.gov/funding/programs.jsp?org=CISE

Selected CISE and relevant NSF-wide programs

Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers (ADVANCE):

The goals of the ADVANCE program are (1) to develop systemic approaches to increase the representation and advancement of women in academic STEM[1] careers; (2) to develop innovative and sustainable ways to promote gender equity that involve both men and women in the STEM academic workforce; and (3) to contribute to the research knowledge base on gender equity and the intersection of gender and other identities in STEM

academic careers. The ADVANCE program contributes to the development of a more diverse science and engineering workforce because of the focus on equity for STEM academic faculty who are educating, training, and mentoring undergraduate and graduate students and postdoctoral scholars.
https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5383&org=CISE&sel_org=CISE&from=fund

Faculty Early Career Development (CAREER) Program - CAREER:
The Faculty Early Career Development (CAREER) Program is a Foundation-wide activity that offers the National Science Foundation's most prestigious awards in support of early-career faculty who have the potential to serve as academic role models in research and education and to lead advances in the mission of their department or organization. Activities pursued by early-career faculty should build a firm foundation for a lifetime of leadership in integrating education and research. NSF encourages submission of CAREER proposals from early-career faculty at all CAREER-eligible organizations and **especially encourages women**, members of underrepresented minority groups, and persons with disabilities to apply. **Deadline: July 19, 2017**. See
https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503214&org=CISE&from=home

Computer and Information Science and Engineering (CISE) Research Initiation Initiative (CRII):
With the goal of encouraging research independence immediately upon obtaining one's first academic position after receipt of the PhD, the Directorate for Computer and Information Science and Engineering (CISE) will award grants to initiate the course of one's independent research. Understanding the critical role of establishing that independence early in one's career, it is expected that funds will be used to support untenured faculty or research scientists (or equivalent) in their first three years in a primary academic position after the PhD, but not more than a total of five years after completion of their PhD. One may not yet have received any other grants or contracts in the Principal Investigator (PI) role from any department, agency, or institution of the federal government, including from the CAREER program or any other program, post-PhD, regardless of the size of the grant or contract, with certain exceptions noted below. Serving as co-PI, Senior Personnel, Postdoctoral Fellow, or other Fellow does not count against this eligibility rule. Grants, contracts, or gifts from private companies or foundations; state, local, or tribal governments; or universities do not count against this eligibility rule.
Deadline: August 9th. See
https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=504952&org=CISE&from=home

Facilitating Research at Primarily Undergraduate Institutions:
The Research in Undergraduate Institutions (RUI) and Research Opportunity Awards (ROA) funding opportunities support research by faculty members at predominantly undergraduate institutions (PUIs). RUI proposals support PUI faculty in research that engages them in their professional field(s), builds capacity for research at their home institution, and supports the integration of research and undergraduate education. ROAs similarly support PUI faculty research, but these awards typically allow faculty to work as visiting scientists at research-intensive organizations where they collaborate with other

NSF-supported investigators. Deadline: Submission deadlines vary by program and proposals must meet program-specific requirements to be considered for review. PIs should contact cognizant program officers for guidance. See https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5518

Non-NSF Government Sources

Defense Sciences Research and Technology (DARPA) - Young Faculty Award
The objective of the DARPA Young Faculty Award (YFA) program is to identify and engage rising research stars in junior faculty positions at U.S. academic institutions and expose them to Department of Defense needs as well as DARPA's program development process. The YFA program provides funding, mentoring, and industry and DoD contacts to awardees early in their careers so they may develop their research ideas in the context of DoD needs. The program focuses on untenured faculty, emphasizing those without prior DARPA funding. The long-term goal of the YFA program is to develop the next generation of academic scientists, engineers and mathematicians in key disciplines who will focus a significant portion of their career on DoD and national security issues. **Deadline: Most recent was in January.** See http://www.darpa.mil/Opportunities/Universities/Young_Faculty.aspx

Office of Science/U.S. Department of Energy - Financial Assistance Program - Advanced Scientific Computing Research
The mission of the Advanced Scientific Computing Research (ASCR) program is to advance applied mathematics and computer science; deliver the most advanced computational scientific applications in partnership with disciplinary science; advance computing and networking capabilities; and develop future generations of computing hardware and software tools for science, in partnership with the research community, including U.S. industry. The strategy to accomplish this has two thrusts: developing and maintaining world-class computing and network facilities for science; and advancing research in applied mathematics, computer science and advanced networking. **Deadline: September 30**. See https://science.energy.gov/ascr/funding-opportunities/

NASA - Postdoctoral Program
The NASA Postdoctoral Program (NPP) provides early-career and more senior scientists the opportunity to share in NASA's mission, to reach for new heights and reveal the unknown so that what we do and learn will benefit all humankind. NASA Postdoctoral Fellows work on 1 to 3 year assignments with NASA scientists and engineers at NASA centers and institutes to advance NASA's missions in earth science, heliophysics, planetary science, astrophysics, space bioscience, aeronautics, engineering,human exploration and space operations, astrobiology, and science management. NASA Postdoctoral Program Fellows contribute to our national scientific exploration, confirm NASA's leadership in fundamental research, and complement the efforts of NASA's partners in the national science community. **Deadlines: March 1, July 1, and November 1**. See https://npp.usra.edu/

Private Funders

American Association for the Advancement of Science - L'OREAL-USA Fellowships for Women in Science
The L'Oréal USA Fellowships for Women in Science program is a national awards program that annually recognizes and rewards five U.S.-based women researchers at the beginning of their scientific careers. Recipients each receive up to $60,000 that must be put towards their postdoctoral research. Launched in 2003 as the U.S. component of the L'Oréal-UNESCO for Women in Science International Fellowship program, the U.S. Fellowships aim to: Raise awareness of the contribution of women to the sciences; Identify exceptional female researchers in the U.S. to serve as role models for younger generations. All applicants must have a conferred Ph.D. and have started in their postdoctoral position by July 1, 2015 and must also maintain that status throughout the Fellowship year. All applicants must be American born, naturalized citizen or permanent resident. **Deadline: May 19. See h**ttp://www.aaas.org/page/l-or-al-usa-fellowships-women-science

The American Association of University Women
- American Postdoctoral Research Leave Fellowships
Postdoctoral Research Leave Fellowships are designed to assist scholars in obtaining tenure and other promotions by enabling them to spend a year pursuing independent research. The primary purpose of the fellowship is to increase the number of women in tenure-track faculty positions and to promote equality for women in higher education. Tenured professors are not eligible. **Deadline: Applications are open August 1–November 15**. See http://www.aauw.org/what-we-do/educational-funding-and-awards/american-fellowships/af-postdoctoral-research-application/

-American Summer/Short-Term Research Publication Grants
Summer/Short-Term Research Publication Grants provide funds for women college and university faculty and independent researchers to prepare research for publication. Time must be available for eight consecutive weeks of final writing and editing in response to issues raised in critical reviews. These grants can be awarded to both tenure-track and part-time faculty, and new and established researchers. The grants are designed to assist the candidate in obtaining tenure and other promotions. Tenured professors are not eligible. **Deadline: Applications are open August 1–November 15**. See http://www.aauw.org/what-we-do/educational-funding-and-awards/american-fellowships/af-research-publication-grants-application/

Association for Women in Mathematics
- Mathematics Mentoring Travel Grants
The objective of the NSF-AWM Mathematics Mentoring Travel Grants is to help junior women to develop a long-term working and mentoring relationship with a senior mathematician. Open to women holding a doctorate (or equivalent) with a U.S. work address. Grant amount: $5,000 maximum. **Deadline: Most recent was February 1**. See https://sites.google.com/site/awmmath/programs/travel-grants/mathematics-mentoring-travel-grants

-Mathematics Travel Grants
The Mathematics Travel Grants provide full or partial support for travel and subsistence for a meeting or conference in the applicant's field of specialization. Open to women holding a doctorate (or equivalent) with a U.S. work address. Grant amount up to $2,300 for domestic travel and of $3,500 for foreign travel. **Deadlines: May 1, 2017, October 1, 2017.** See https://sites.google.com/site/awmmath/programs/travel-grants/mathematics-travel-grants

Fulbright Scholar Program - Computer Science
The Core Fulbright Scholar Program offers over 500 teaching, research or combination teaching/research awards in over 125 countries. Opportunities are available for college and university faculty and administrators as well as for professionals, artists, journalists, scientists, lawyers, independent scholars and many others. In addition to several new program models designed to meet the changing needs of U.S. academics and professionals, Fulbright is offering more opportunities for flexible, multi-country grants. **Deadline: August 1**. To view programs under the Computer Science discipline, see: http://awards.cies.org/

Google - Research Awards
The Faculty Research Awards Program, sometimes referred to as the Research Awards Program, supports academic research in computer science, engineering, and related fields. Through the program, we fund world-class research at top universities, facilitate interaction between Google and academia, and support projects whose output will be made openly available to the research community. Awards are structured as unrestricted gifts to universities and are designed to support roughly the cost of one graduate student for one year of work. **Deadline: September 30th**. Applications for 2017 will be available in late summer 2017. See https://research.google.com/research-outreach.html#/research-outreach/faculty-engagement/faculty-research-awards

Human Frontier Science Program Organization - Cross-Disciplinary Fellowships
Cross-Disciplinary Fellowships are for applicants with a Ph.D. from outside the life sciences (e.g. in physics, chemistry, mathematics, engineering or computer sciences), who have had limited exposure to biology during their previous training. HFSP fellowships are for three years and encourage early career scientists to broaden their research skills by moving into new areas of study while working in a new country. Fellows may choose to stay for up to three years in the host country or use the last year of their fellowship to return to their home country or to move to another HFSPO member country. **Deadline: The next fellowship competition will be in August 2017**. See http://www.hfsp.org/funding/postdoctoral-fellowships

IBM Research - Goldstine Postdoctoral Fellowship in Mathematical Sciences
The Fellowship for research in the mathematical and computer sciences provides scientists of outstanding ability an opportunity to advance their scholarship as resident department members at the Research Center. The Research Center is located in Westchester County, less than an hour north of New York City. Areas of research include: algorithms

(approximation, randomized, and on-line); complex systems; data mining (machine learning, pattern recognition, computational statistics); dynamical systems; high-performance computing (scientific computing, parallel computing, big-data); inverse problems; numerical analysis; optimization (discrete, continuous, global and stochastic); operations research; probability theory (stochastic models, risk management, queues & queuing networks, simulation); and statistics (time-series, multivariate analysis, spatiotemporal analysis, design of experiments & reliability). **Deadline: Most recent was in January**. See http://www.research.ibm.com/goldstine/

International Information Science Foundation - Visiting Researcher Support Program
The International Information Science Foundation (IISF) in Japan has been supporting the travel expenses of outstanding young computer scientists who wish to visit Japan for research purposes. Applicants whose research field falls under the general heading of information or computer science will be considered. These fields include (but are not restricted to) Computer Graphics, Computer Network, Computing System, Computing Theory, Databases, Intelligent System, Robotics, and Software and Software Science. The applicant should be a scientist doing fundamental research in computer science at a university or research institute (including graduate studies). The applicant must be a citizen of a country other than Japan, and should be at most 40 years old. **Deadline: Most recent was May 31**. See http://www.iisf.or.jp/subsidize-en.html

Mathematical Sciences Research Institute - Postdoctoral Fellows
These awards provide support for five months. The fellowship stipend is currently $6,000 per month, with a travel subsidy for one round-trip from your current institution, and a research travel budget of $600. Health insurance is also provided. Postdoctoral Fellows cannot receive any other monetary compensation during their PD fellowship at MSRI.In addition, MSRI's postdoctoral program has some endowed fellowships. There is no need to apply separately for these positions which carry a monthly stipend of $7,000 per month and a research travel budget of $600 for one semester. Awards will be made competitively, from nominees submitted by the organizing committees of the programs. **Deadline: Most recent was December 1**. See http://www.msri.org/web/msri/scientific/member-application/postdoctoral-fellow

David & Lucile Packard Foundation - Fellowships for Science and Engineering
Candidates must be faculty members at one of the 50 Invited Institutions. Candidates must be eligible to serve as principal investigators engaged in research in the natural and physical sciences or engineering and must be within the first three years of their faculty careers. Disciplines that will be considered include physics, chemistry, mathematics, biology, astronomy, computer science, earth science, ocean science, and all branches of engineering. Candidates engaged in research in the social sciences will not be considered. The Fellowship Program provides support for highly creative researchers early in their careers; faculty members who are well established and well-funded are less likely to receive the award. Packard Fellows are inquisitive, passionate scientists and engineers who take a creative approach to their research, dare to think big, and follow new ideas wherever they lead. **Deadline: Requests for nominations are sent to the university**

presidents in January; nominations are due to the Foundation by March 15. See https://www.packard.org/what-we-fund/conservation-and-science/science/packard-fellowships-for-science-and-engineering/about-the-packard-fellowship-awards/

Simons Foundation
- Targeted Grants in Mathematics and Physical Sciences
The Simons Foundation's Mathematics and Physical Sciences (MPS) division invites applications for its new Targeted Grants in MPS program. The program is intended to support high-risk projects of exceptional promise and scientific importance on a case-by-case basis. Applications may be submitted by established U.S. and foreign public and private educational institutions and stand-alone research centers. There is no limit per institution or individual. There are no citizenship or department requirements for PIs. **Deadline: Rolling**. See https://www.simonsfoundation.org/funding/funding-opportunities/mathematics-physical-sciences/targeted-grants-in-mps/

- Simons Fellows Program
The Fellows Programs provide funds to faculty for up to a semester long research leave from classroom teaching and administrative obligations. Such leaves can increase creativity and provide intellectual stimulation. The goal of the Simons Fellows Program is to make it easier to take such leaves, or to extend sabbatical leaves by an extra half year. Grants awarded will be restricted to sabbatical-eligible faculty who wish to use the grant for the purpose of extending a single term sabbatical leave to a full academic year. **Deadline: Most recent was September 29th. RFA Opens Summer 2017**. See https://www.simonsfoundation.org/funding/funding-opportunities/mathematics-physical-sciences/simons-fellow-program/

Alfred P. Sloan Foundation
- Research Fellowships
These two-year, $60,000 fellowships are awarded yearly to 126 researchers in recognition of distinguished performance and a unique potential to make substantial contributions to their field. Candidates must hold a tenure track (or equivalent) position at a college, university, or other degree-granting institution in the United States or Canada. Tenure track faculty positions at the candidate's institution must include a yearly teaching requirement. Candidates must hold a Ph.D. (or equivalent) in chemistry, computational or evolutionary molecular biology, computer science, economics, mathematics, neuroscience, ocean sciences, physics, or a related field. **Deadline: September 15, 2017**. See https://sloan.org/fellowships/2017-Fellows

- Data & Computational Research Grants
Grantmaking aims to support the efficient management and sharing of research data and code from acquisition through analysis; and grow the current and future scientific data work force. Grants in this program tend to fall into four broad types: Software grants support technology development ranging from prototyping funds to substantial scaling resources; Training grants aim at supporting work force training and curricular initiatives as well as targeted adoption of new technologies by specific communities; Research grants bring historical, ethnographic, and economic research methods to bear on our

understanding of scholarly activities in a changing technological context; Community grants build networks for knowledge exchange across disciplines as well as institutions that serve to incubate sustainable research and software projects**. Deadline: Rolling. See** https://sloan.org/programs/digital-technology/data-and-computational-research