



IDIA JUNE NEWSLETTER

FUNDING OPPORTUNITIES

[National Science Foundation - Program on Fairness in Artificial Intelligence in Collaboration with Amazon \(FAI\)](#)

NSF has long supported transformative research in artificial intelligence (AI) and machine learning (ML). The resulting innovations offer new levels of economic opportunity and growth, safety and security, and health and wellness, intended to be shared across all segments of society. Broad societal acceptance of large-scale deployments of AI systems rely critically on their trustworthiness which, in turn, depends on the ability to assess and demonstrate the fairness (including broad accessibility and utility), transparency, explainability, impartiality, inclusivity, and accountability of such systems. For example, the behavior of algorithms for face recognition, speech, and language, especially when integrated into decision support systems applied across different segments of society, would benefit from new foundational research in fairness of AI systems.

NSF and Amazon are partnering to jointly support computational research focused on fairness in AI, with the goal of contributing to trustworthy AI systems that are readily accepted and deployed to tackle grand challenges facing society. Specific topics of interest include but are not limited to transparency, explainability, accountability, inclusivity, potential adverse biases (including social biases) and effects, mitigation strategies, algorithmic advances, fairness objectives, validation of fairness, participatory design, and advances in broad accessibility and utility. Funded projects will enable broadened acceptance of AI systems, helping the U.S. to further capitalize on the potential of AI technologies. Although Amazon provides partial funding for this program, it will not play a role in the selection of proposals for award.

Advancing AI is a highly interdisciplinary endeavor drawing on fields such as computer science, information science, engineering, statistics, mathematics, cognitive science, psychology, sociology, decision science, and economic sciences. Considerations of practice, often derived from the social, behavioral, and economic sciences, can inform new directions for computational science to better realize the benefits of algorithmic and data fairness. As such, NSF and Amazon expect these varied perspectives to be critical for the study of fairness in AI. NSF's ability to bring together multiple scientific disciplines uniquely positions the agency in this collaboration, while building AI that is fair and unbiased is an important aspect of Amazon's AI initiatives. This program supports the conduct of fundamental computer science research into theories, techniques, and methodologies that go well beyond today's capabilities and are motivated by challenges and requirements in real systems.

Deadline: August 03, 2021

[Directorate for Social, Behavioral and Economic Sciences/NSF - Cognitive Neuroscience \(CogNeuro\)](#)

The National Science Foundation announces the area of Cognitive Neuroscience within the Division of Behavioral and Cognitive Sciences in the Directorate for Social, Behavioral, and Economic Sciences. Cognitive neuroscience is an interdisciplinary field of research to understand the neural basis of human cognition. The cognitive neuroscience program therefore seeks to fund highly innovative proposals that employ brain-based measurements in order to advance our understanding of the neural systems that mediate cognitive processes. Human cognitive science encompasses a wide range of topics, including attention, learning, memory, decision-making, language, social cognition, and emotions. Proposals will be considered that investigate a particular cognitive process using human brain data. New frontiers in cognitive neuroscience research have emerged from investigations that integrate data at different spatial and temporal scales. A wide range of neuroimaging techniques are employed by cognitive neuroscientists for measuring or inferring neural activity, as well as techniques for determining neuroanatomical structure-function relationships (e.g., fMRI, EEG, MEG, TMS). Electrocorticography (ECoG) and experimental interventions in human neural function, including stimulation and manipulation techniques combined with neuroimaging, have advanced the field. Additional recent methodological advances include machine-learning and multivariate analysis methods, resting-state and task-based connectomics and large-scale data analysis used to investigate and infer functional mechanisms, as well as multimodal neuroimaging and model-based approaches, wherein computational cognitive models may directly inform neuroimaging results.

Deadline: August 13, 2021

[Department of State - Global Telecommunications and Emerging Technology Training](#)

The Digital Connectivity and Cybersecurity Partnership (DCCP) at the Department of State announces this Notice of Funding Opportunity (NOFO) to conduct a series of classes/trainings on information and communications technology (ICT) policy, internet and telecommunications regulation, cybersecurity, digital trade, critical and emerging technologies, and digital economy policy to government officials, policymakers, and emerging leaders and influencers in the ICT industry in their respective ESKF-eligible countries. Funding is up to \$3,106,476.

The Digital Connectivity and Cybersecurity Partnership (DCCP) is a global, multi-year initiative co-led by the U.S. Department of State and United States Agency for International Development (USAID) to promote an open, interoperable, secure, and reliable internet. The DCCP provides foreign assistance to target countries in order to encourage the adoption of information and communication technologies (ICT) to promote economic growth and innovation, to advocate for the free flow of data, strengthen cybersecurity and mitigate against premature regulatory efforts aimed at emerging technologies. DCCP programs are implemented unilaterally, bilaterally with like-minded partners, and through multilateral international fora. DCCP was launched in 2018 to help provide credible alternatives to top-down, authoritarian approaches to internet governance, promote the deployment of secure, next generation ICT infrastructure, and build the cybersecurity capacity of our partners in order to enable nations to realize the tremendous economic benefits of the digital economy.

Deadline: July 12, 2021

[National Institute of Child Health and Human Development/NIH/DHHS - NICHHD Resource Program Grants in Bioinformatics \(P41 Clinical Trial Not Allowed\)](#)

The purpose of this Funding Opportunity Announcement (FOA) is to support the continued operation, enhancement, and dissemination of unique database bioinformatics resources that are of major importance to the research community using animal models of embryonic developmental processes. These grants will support ongoing development, maintenance, and enhancement of the resources, user training and services, provision of community-generated data storage and archiving, wide dissemination of the tools and/or resource, and establishment of interoperability with other NIH bioinformatics resources.

These Resource Program Grants in Bioinformatics are intended to support the continued availability, operation, improvement and maintenance of databases, digital information, or bioinformatics tools and/or resources, user training and services, and wide dissemination of these tools or resources.

To qualify for support, bioinformatics resources such as software and algorithms, or knowledge resources must be of demonstrable value toward advancing research utilizing animal model systems in the biomedical sciences, and must also be of particular importance to those seeking to understand the biological basis of human and animal development and the etiology of structural birth defects.

The resources must be sufficiently mature to have verifiable support and utility for users within the developmental biology research community; operate according to FAIR data principles and have a demonstrable national and international impact.

Deadline: September 07, 2021

[National Library of Medicine/NIH/DHHS - Data Science Research: Personal Health Libraries for Consumers and Patients \(R01 Clinical Trial Optional\)](#)

The National Library of Medicine seeks applications for novel data science/informatics approaches that can help individuals gather, manage and use data and information about their personal health.

Increasingly, we have access to a broad and complex array of personal health information that is relevant to the state of one's health. Health-related information can come from diverse sources, such as mass media and social networks, health care organizations, government agencies, clinicians, family members and friends. Health-related information also comes in many different formats, such as data from electronic medical records, family histories and genealogies, data streams from activity trackers, personal genome sequences, articles, videos about diseases and treatments, and public research data sets. People discuss personal health decisions and health information with the clinicians from whom they receive care, they also seek health information from other sources that are increasingly digital, and are constantly changing, enriched with new streams of data and new types of data. National biomedical research initiatives are emerging, such as the All of US Research Program and the Million Veteran Program, that invite persons to share their digital health data and biospecimens with researchers. There are also collaborative initiatives such as Patients Like Me® which involve contributing personal health data for citizen science projects.

Applicants must base their proposed work on an informed profile of the intended users, and, the work should be developed through interaction with the intended users. The strongest projects will provide approaches that incorporate health data and information from more than one source, such as diagnostic images and links to full-text articles or genome sequence data linked to a family health history. An application should be centered on the problem area being addressed and the intended audience, propose a possible solution that employs novel data science or informatics and undertake a pilot that will result in evidence of the degree of success and/or needed next steps.

Deadline: June 30, 2021

[Directorate for Computer and Information Sciences and Engineering/NSF - Smart Health and Biomedical Research in the Era of Artificial Intelligence and Advanced Data Science \(SCH\)](#)

The purpose of this interagency program solicitation is to support the development of transformative high-risk, high-reward advances in computer and information science, engineering, mathematics, statistics, behavioral and/or cognitive research to address pressing questions in the biomedical and public health communities. Transformations hinge on scientific and engineering innovations by interdisciplinary teams that develop novel methods to intuitively and intelligently collect, sense, connect, analyze and interpret data from individuals, devices and systems to enable discovery and optimize health. Solutions to these complex biomedical or public health problems demand the formation of interdisciplinary teams that are ready to address these issues, while advancing fundamental science and engineering.

This interagency solicitation is a collaboration between NSF and the NIH. The SCH program supports innovative, high-risk/high-reward research with the promise of disruptive transformations in biomedical research, which can only be achieved by well-coordinated, convergent, inter-disciplinary approaches that draw from multiple domains of computer and information science, engineering, mathematical sciences and the biomedical, social, behavioral, and economic sciences. Therefore, the work to be funded by this solicitation must make fundamental contributions to two or more disciplines, such as computer or information sciences, engineering, mathematical sciences, social, behavioral, biomedical, cognitive or economic sciences to improve fundamental understanding of biomedical and health related processes and address a key health problem. The research teams must include members with appropriate and demonstrable expertise in the major areas involved in the work. Proposals may address computational, algorithmic, data fusion and systemic level issues in biomedical data science research. Proposals can also address human perceptual, cognitive, or behavioral factors that impact the effectiveness of technology and data science research in generating change. Traditional disease-centric medical, clinical, pharmacological, biological or physiological studies and evaluations are outside the scope of this solicitation.

Deadline: November 10, 2021

FELLOWSHIP

[Microsoft Research Ph.D. Fellowship](#)

As someone in the academic community, we are reaching out to let you know we're currently accepting submissions for this years Microsoft Research PhD Fellowship. The global program identifies and empowers the next generation of exceptional computing research talent. We are looking for the best and brightest talent and celebrate individuality. We invite and encourage candidates to come as they are and do what they love.

Microsoft recognizes the value of diversity in computing and aims to increase the pipeline of talent receiving advanced degrees in computing-related fields to build a stronger and inclusive computing-related research community. We currently offer Ph.D. fellowships in Asia-Pacific, Canada, and the United States, EMEA (Europe, Middle East, Africa), and Latin America.

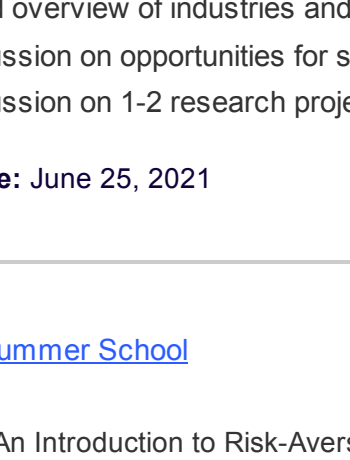
We encourage you to forward this email message within your communities either directly with your student and faculty contacts, via typically relevant email lists, or share on social media: [Twitter](#), [Facebook](#), [Instagram](#), and [LinkedIn](#).

Please direct any questions not answered on the program page to the regional program managers below.

Canada & US, EMEA, and Latin America: Mariah L. Christianson

at msfellow@microsoft.com

Deadline: June 30, 2021



ICAP Innovation Commercialization Assistance Program

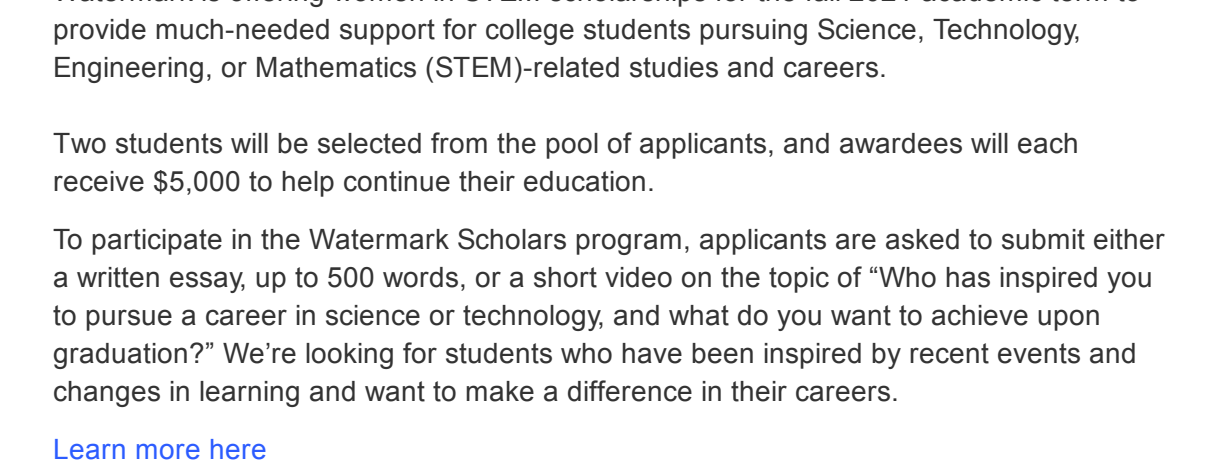
The Innovation Commercialization Assistance Program (ICAP) is focused on helping technology and innovation-driven teams on their path to success. ICAP works with startups to provide support along their entire journey to get their work to the market – from ideation through funding. This is accomplished through experiential learning programs and one-on-one advising with a team of experienced entrepreneurs and intrapreneurs. These services are offered at no cost and all advising is confidential. ICAP provides the NSF I-Corps Regional Short Course for Mason and offers a pathway to NSF National I-Corps and increasing the likelihood of being awarded federal grants like SBIR and STTRs.

Over the past three years, ICAP has worked with over 120 university-based teams and many have gone one to participate in NSF National I-Corps and receive grants from the NSF, NIH, DoED, and others.

Email the program's director, Josh Green, at jgreen45@gmu.edu.

[Learn more](#)

UPCOMING EVENTS



Be a part of Guild.

The Guild program at George Mason University as part of the [Break Through Technology](#) is designed to inspire more women to explore and take upon computing careers in the future. It is a paid 1-week workshop designed for incoming students and undergrads to help them gain hands-on experience with coding, digital product development, and technology creation through the lens of a "real world challenge"

Our next Guild program will run from **July 26-July 30, 2021**

Apply here: <https://gmu.axl.qualtrics.com/jfe/form/SV egtzx9yC1rkdZKS>

What to expect:

Community: With so much work and study being online, how can we make meaningful connections to others?

Design: How can we work with others to understand and work on solutions to real-world problems?

Programming: How do I use programming tools to get user input, process data, and provide meaningful output?

Careers: What do industry professionals advise in their roles as mentors? What do computing jobs look like?

Study: What are the next steps for exploring a tech career? What is the pathway to graduate with a major or minor in computer science and information technology from Mason?

[The 3rd NOAA Workshop on Leveraging AI in Environmental Sciences](#)

On behalf of the planning team, we invite you to participate in the **"3rd NOAA Workshop on Leveraging AI in Environmental Sciences"**, which will be a hybrid event on **September 13–17, 2021**. The theme for this year's workshop is **"Transforming Weather, Climate Services, and Blue Economy with Artificial Intelligence"**. As a hybrid event, in-person capacity at Boulder will be limited in accordance with the most recent public health guideline while the virtual event will be open broadly.

We invite you to submit an abstract relevant to the theme of this year's workshop. The major topics that will be covered by this September include:

- **AI for Weather & Climate:** Using AI to advance the understanding of weather and climate systems and improve the capability to predict extreme events and future changes.
- **AI for Blue Economy:** Using AI to enhance all sectors of the American Blue Economy, such as fishery stock assessment, efficient marine resource surveys, automated data acquisition and analysis, image processing, coastal resilience planning, and protection of the marine ecosystem.
- **Workforce Development & Education:** Development and educational activities to promote workforce proficiency and increase workforce diversity around AI.
- **Research-to-Operation/Commercialization (R2X) for AI:** Experiments and lessons learned on how to transfer AI-based research into operational and/or commercial products.
- **Trustworthy & Responsible AI in Environmental Sciences:** Tools and case studies to address the ethical concerns of AI applications in environmental sciences and their societal impacts, such as explainable AI and risk communication.
- **Seamless AI system:** Development of end-to-end AI-based systems that provide workflows, products, and/or services to build customized AI applications for end-users.
- **Community of Practices:** Strategies and examples of how to organize communities of practice around AI in environmental sciences to accelerate the adoption of AI and the collaborations with communities of practice that are relevant to other NOAA's Science and Technology focus areas.
- **Tools, Resources, and Datasets:** Development of open source tools, resources, and datasets to improve the efficiency and efficacy of AI applications in environmental sciences, such as deep learning tools, reference datasets for AI application benchmarking, and AI-ready data development.

You can submit an abstract until **June 18, 2021** using this [Google form](#) or directly visit <https://bit.ly/NOAA-AI-2021>.

Please visit the workshop page (<https://2021noaaaiworkshop.sched.com/info>) for more information. If you have any questions, please email douglas.rao@noaa.gov.

[ACSC Faculty Curriculum Development Workshop](#)

Join XSEDE Broadening Participation and Education Programs for the virtual Advanced Computing for Social Change (ACSC) faculty curriculum development workshop will be held virtually **June 17-18, 2021, 11am – 5pm Eastern** each day. XSEDE Broadening Participation and Education Programs are seeking faculty from diverse disciplines and backgrounds who would like to incorporate the ACSC approach to teaching data analytics and computational thinking into their curriculum or are interested in using these tools in their research. This 2-day workshop provides materials informed by the ACSC student challenge to help introduce software tools, such as R, and classroom resources for data analysis, visualization, and computational modeling.

[Register here](#)

[CMAI Meets Industry Symposium](#)

This event is an integral part of CMAI's research and education mission to try to bring together academia, national labs and industries. For instance, knowing more about these industries and labs will allow academia to include aspects of industrial applications in their curriculum. It will also create unique opportunities for researchers from industries, labs, and academia to collaborate. Finally, and most importantly, new job and internship opportunities for students and postdocs will be created.

There will be speakers from 4 institutions (2 National labs + 2 Industries)

- U.S. Naval Research Laboratory (NRL)
- National Institute of Standards and Technology (NIST)
- The Aerospace Corporation
- MITRE Corporation

The presentations will be structured keeping these points in mind and they will provide

- Broad overview of industries and labs
- Discussion on opportunities for students and postdocs
- Discussion on 1-2 research projects in more detail

Deadline: June 25, 2021

[CMAI Summer School](#)

Topic: An Introduction to Risk-Averse PDE-Constrained Optimization: Theory, Numerical Solution, and Open Problems

Speaker: Prof. Dr. Thomas M. Surowiec (Philipps-Universität Marburg, Germany)

Timings: 9:30am - 12:45pm (EDT)

Deadline: June 18, 2021

JOB/INTERNSHIP OPPORTUNITIES

Digital Media Analyst, CRAFT Media Digital - [Apply here](#)

Digital Fundraising Manager, National Parks Conservation Association - [Apply here](#)

Digital Marketing Intern, Autism Society of America - [Apply here](#)

Summer Intern IT Digital (Remote), AVANGRID Energy - [Apply here](#)

STUDENT OPPORTUNITIES

[Watermark Scholarship for Women in STEM](#)

Watermark is offering women in STEM scholarships for the fall 2021 academic term to provide much-needed support for college students pursuing Science, Technology, Engineering, or Mathematics (STEM)-related studies and careers.

Two students will be selected from the pool of applicants, and awardees will each receive \$5,000 to help continue their education.

To participate in the Watermark Scholars program, applicants are asked to submit either a written essay, up to 500 words, or a short video on the topic of "Who has inspired you to pursue a career in science or technology, and what do you want to achieve upon graduation?" We're looking for students who have been inspired by recent events and changes in learning and want to make a difference in their careers.

[Learn more here](#)

Deadline: July 15, 2021

FUNDING ANNOUNCEMENTS, AWARDS AND ACCOMPLISHMENTS

Optimization, Control, Networks and Learning from Data

PI & Co-PIs: Antil, Harbir, Lohner, Rainald, Warma, Mahamadi, College of Science
Funding source: US Department of the Air Force (USAF)

Nonlocal PDEs: Modeling, Analysis, Control and Beyond

PI & Co-PIs: Warma, Mahamadi, College of Science
Funding source: US Department of the Air Force (USAF)

Space Physics Data Facility (SPDF) Science Support

PI & Co-PIs: Billitta, Dieter, College of Science
Funding source: NASA-Goddard Space Flight Cent

Commonwealth Cyber Initiative Fellowship

PI & Co-PIs: Wijesekera, Duminda, Volgenau School of Engineering
Funding source: Virginia Research Investment Fund

Digital Health Solutions for COVID-19; COVID Community Action and Research Engagement (COVID CARE)

PI & Co-PIs: Alemi, Farrokh, Roess, Amira Albert, College of Health & Human Services
Funding source: US Department of Health and Human Services (DHHS)

Cyber Startups: Expansion of Successful Pilot Program for Novel Experiential Learning

PI & Co-PIs: Stolz, Gisele, Sorrell, Paula, Research, Innov & Econ Impact
Funding source: Virginia Research Investment Fund

IDIA IN THE NEWS

[New pilot space debuts in Arlington](#), Mason News, May 25, 2021

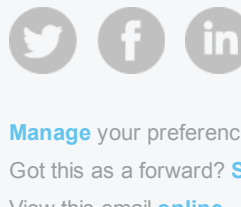
[Students win oral presentation at American Vacuum Society Mid-Atlantic Virtual Chapter Meeting](#), VSE News, May 26, 2021

[Systems Engineering and cyber security engineering represent Mason at Andrew Sage Combetition](#), VSE News, May 03, 2021

[Vietnamese American Alumnus Supports Military through Telecommunications](#), Business School News, May 27, 2021

[New Seed Grant Gets Work Started on Infrastructure Protection, Emergency Response: Fellowships Offered](#), SCHAR News, May 25, 2021

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