ANNOUNCEMENTS



Understanding the Impact of Misinformation on Palliative Care Demand Using Machine Learning and Qualitative Methods PI - Megumi Inoue from Department of Social Work Other collaborators - Naoru Koizumi & Raj Kulkarni from SCHAR School of Policy; Mahdi Hashemi from Information Sciences and Technology; Denise Mohess, MD at INOVA; Matthew Kestenbaum, MD at Capital Caring Health MASON Institute for Digital InnovAtion **FUNDING OPPORTUNITIES**

An NSF supplemental funding opportunity is available in fiscal years FY 2021 and beyond to provide graduate students with experiential learning opportunities through research internships to acquire core professional competencies and skills to support careers in any sector of the U.S. economy. NSF currently invests in a number of

Dear Colleague Letter: Non-Academic Research Internships for Graduate Students

graduate student preparedness activities and has historically encouraged principal investigators (PIs) to include such activities in research proposals to NSF. This Dear Colleague Letter (DCL) describes funding opportunities at NSF to ensure graduate

students are well prepared for the 21st-century STEM workforce.

Deadline: Application accepted on rolling basis National Library of Medicine/NIH/DHHS - Computational Approaches to Curation at Scale for Biomedical Research Assets (R01 Clinical Trial Not Allowed) NLM wishes to accelerate the availability of and access to secure, complete data sets and computational models that can serve as the basis of transformative biomedical discoveries by improving the speed and scope of the curation processes. This Funding Opportunity Announcement is focused on automating curation of biomedical digital assets in support of Goal 1. Objective 1.1 of the NLM Strategic Plan 2017-2027: "An

the speed of discovery

(INTERN) Supplemental Funding Opportunity

can speed discoveries that will improve health. But this promise will go unrealized without advances in automated and autonomous curation. Objective 1.2: "Automatic, autonomous curation strategies will allow for operational efficiency as well as accelerate

Digital curation involves characterizing, annotating, managing, and preserving digital assets such as research data sets, computational and other types of models, reusable visualization tools, and other digital assets. Proficient curation of digital assets maximizes their reuse potential, mitigates risk of obsolescence, reduces the likelihood that their long-term value will diminish or be lost, and helps assure reproducibility of research. The evolving digital ecosystem supports data-driven biomedical discovery by providing access to large quantities of biomedical and health-related data, to computational models and to open source software and code. The scope, scale and heterogeneity of digital data alone are vast, ranging from genome sequences to biomedical images, from observational health findings to environmental measurements, from family histories to sensor readings from personal trackers. As the amount and complexity of digital assets continue to grow, manual curation will not scale to meet future needs. At the same time, as researchers make research data sets, models and

that (1) increase the speed and assure quality and security of storage techniques, retrieval strategies, annotation methods, data standards, visualization tools and other advanced data management approaches and (2) improve our ability to make biomedical data and other digital research assets findable, accessible, interoperable and reusable Deadline: September 07, 2021 National Institutes of Health/DHHS - Investigator Initiated Research in Computational Genomics and Data Science (R21 Clinical Trial Not Allowed) National Human Genome Research Institute (NHGRI) invites applications for a broad range of research efforts in computational genomics, data science, statistics, and bioinformatics relevant to one or both of basic or clinical genomic science, and broadly applicable to human health and disease. This FOA supports fundamental genomics research developing innovative analytical methodologies and approaches, early stage development of tools and software, and refinement or hardening of software and tools of high value to the biomedical genomics community. Work supported under this FOA should be enabling for genomics and be generalizable or broadly applicable across diseases and biological systems. All applications should address how the methods would scale to address larger and larger data sets. This FOA will use the NIH R21 Exploratory/Developmental Research Grant award mechanism.

Through this FOA, NHGRI seeks to fund innovative research efforts in computational genomics, data science, statistics, and bioinformatics for basic or clinical genomic sciences, and broadly applicable to human health and disease, as well as research leading to improvement of existing software or approaches demonstrated to be in broad

In today's increasingly networked, distributed, and asynchronous world, cybersecurity and privacy involve hardware, software, networks, data, people, and integration with the physical world. Society's overwhelming reliance on this complex cyberspace, however, has exposed its fragility and vulnerabilities that defy existing cyber-defense measures; corporations, agencies, national infrastructure and individuals continue to suffer cyberattacks. Achieving a truly secure cyberspace requires addressing both challenging

scientific and engineering problems involving many components of a system, complex interactions among systems/components, and vulnerabilities that stem from human behaviors and choices. Examining the fundamentals of cybersecurity and privacy as a multidisciplinary subject can lead to fundamentally new ways to design, build and operate cyber systems, protect existing infrastructure, and motivate and educate individuals about cybersecurity and privacy. The Secure and Trustworthy Cyberspace (SaTC) program welcomes proposals that address cybersecurity and privacy, and draw on expertise in one or more of these areas: computing, communication and information sciences; engineering; economics; education; mathematics; statistics; and social and behavioral sciences. Proposals that advance the field of cybersecurity and privacy within

a single discipline or interdisciplinary efforts that span multiple disciplines are both encouraged. Through this solicitation—under the SaTC umbrella—NSF specifically seeks ambitious and potentially transformative center-scale projects in the area of

Directorate for Computer and Information Sciences and Engineering/NSF - Secure and

cybersecurity and privacy that (1) catalyze far-reaching research explorations motivated by deep scientific questions or hard problems and/or by compelling applications and novel technologies that promise significant scientific and/or societal benefits, and (2) stimulate significant research and education outcomes that, through effective knowledge transfer mechanisms, promise scientific, economic and/or other societal benefits. The goal of the SaTC Frontiers program is to advance the frontiers of cybersecurity and privacy, and the areas listed in the SaTC program solicitation (NSF 21-500) are meant to be illustrative but not exhaustive. Deadline: September 07, 2021 Cybersecurity and Infrastructure Security Agency/Department of Homeland Security- Cybersecurity Workforce Development and Training Pilot for Underserved <u>Communities Department of Homeland Security</u> CDET seeks to award a new cooperative agreement for a pilot titled "Cybersecurity Workforce Development and Training Pilot for Underserved Communities" in fiscal year 2021. The activities contemplated in this agreement advance CISA's mission as defined in authorities within the Homeland Security Act of 2002, as amended by the Cybersecurity and Infrastructure Security Agency Act of 2018, specifically as it relates to providing shared situational awareness to enable real-time, integrated, and operational actions across the Federal Government and non-Federal entities to address cybersecurity risks and incidents. The activities contemplated in the agreement directly support the Department of Homeland Security mission areas to safeguard and secure cyberspace. This cooperative agreement seeks to fund applicants to develop a scalable and replicable proof of concept that can respond to cyber eco-system challenges. This cooperative agreement also seeks to leverage the unrealized cybersecurity talent of underserved communities through established or emerging non-traditional technical training providers that create or enhance existing entry-level training and apprenticeship

that generate positive outcomes and results.

Deadline: August 25, 2021

Fit for the Green Deal, which is under the Digital, Industry and Space Work Programme work programme. Expected Outcome: Proposal results are expected to contribute to the following expected outcome: New generation of Al-Powered Robotics: Enabling robots to have more profound impacts than they currently have, in powering them with a deeper kind of AI, endowing them with a better perception and understanding of the world (up to semantic and explainable representations), This would allow the next generation of autonomous robots, with increased capabilities to work without/with limited supervision, as well as the next generation of interactive robots, with greatly improved intuitive, safe and efficient cognitive, social and physical capabilities, to assist humans. objects, navigation in un-controlled and variable or challenging and harsh environments, and continuous human-physical interactions) and an increased level of autonomy over the current state of the art, necessary to address real-world problems, while ensuring through advanced reactivity and mutual understanding, and human-centric automated

Student Research Conference

November 4-7, 2021

Celebrating Student Research Across Disciplines

High school, undergraduate, and graduate students

Keynote and professional development sessions

Networking with STEM professionals and peers

Sigma Xi Annual Meeting

& Student Research Conference

Oral and poster research presentations

Awards for top presenters

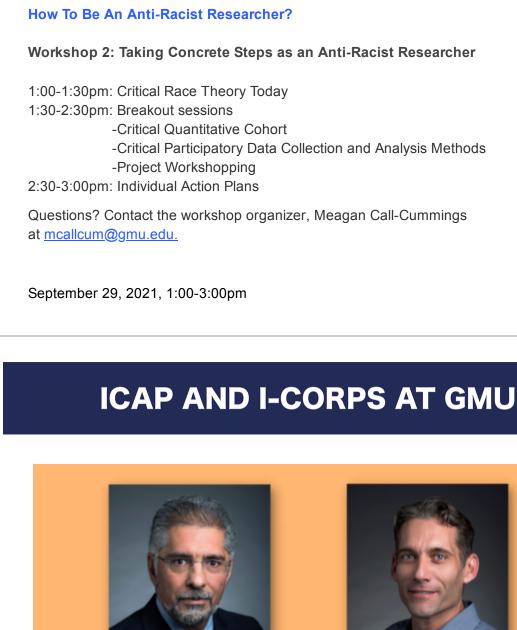
STEM Art and Film Festival

www.sigmaxi.org/src

College and Graduate School Fair

Abstract Submission Deadlines • Oral presentations: August 1, 2021

Poster presentations: September 24, 2021



Academic Fellowship Program for the US Naval Observatory - TO 134 PI & Co-PIs: Satyapal, Shobita, College of Science Funding source: US Department of the Navy Artificial Intelligence Based Analysis of Misinformation and Disinformation Efforts from Mass Media and Social Media in Creating Anti-U.S. Perceptions PI & Co-PIs: Kavak, Hamdi, College of Science Funding source: Virginia Research Investment Fund **PPS Data System Sustaining Engineering and Support** PI & Co-PIs: Kwiatkowski, John M, Croitoru, Arie, College of Science

important research direction will develop strategies for curation at scale." The ability to re-use, integrate or add to existing data sets will open new avenues of opportunity and

other tools available for new uses or re-analysis, it is important to minimize duplication and simplify the process of finding, managing, visualizing and mining all types of digital assets. To help researchers who want to find, interoperate and use these data sources to make new discoveries, and to share their findings so others can build upon them, the purpose of this funding announcement is to encourage applications for new approaches

<u>Trustworthy Cyberspace Frontiers (SaTC Frontiers)</u>

use by the genomics community.

Deadline: September 07, 2021

programs. Additionally, to optimize and expand existing cybersecurity training and apprenticeship programs, the development and implementation of a comprehensive cybersecurity pathways retention strategy to address apprenticeship-to-placement engagement, is needed. Expanding apprenticeships helps the Federal government, state, local, tribal, and territorial (SLTT) entities, as well as, traditional employers with their current and future workforce needs. Applicants will work collaboratively to align resources in response to workforce demand and to offer innovative job training solutions

Directorate for Computer and Information Sciences and Engineering/NSF - Computer and Information Science and Engineering (CISE) Research Initiation Initiative (CRII)

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Cybersecurity and Infrastructure Security Agency Act of 2018, specifically as it relates to providing shared situational awareness to enable real-time, integrated, and operational

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actions across the Federal Government and non-Federal entities to address cybersecurity risks and incidents. The activities contemplated in the agreement directly support the Department of Homeland Security mission areas to safeguard and secure cyberspace. This cooperative agreement seeks to fund applicants to develop a scalable and replicable proof of concept that can respond to cyber eco-system challenges. This cooperative agreement also seeks to leverage the unrealized cybersecurity talent of underserved communities through established or emerging non-traditional technical training providers that create or enhance existing entry-level training and apprenticeship programs. Additionally, to optimize and expand existing cybersecurity training and apprenticeship programs, the development and implementation of a comprehensive cybersecurity pathways retention strategy to address apprenticeship-to-placement engagement, is needed. Expanding apprenticeships helps the Federal government, state, local, tribal, and territorial (SLTT) entities, as well as, traditional employers with their current and future workforce needs. Applicants will work collaboratively to align resources in response to workforce demand and to offer innovative job training solutions that generate positive outcomes and results. Deadline: September 20, 2021 European Commission - Digital and Emerging Technologies for Competitiveness and Fit for the Green Deal -- Pushing the Limit of Robotics Cognition (AI, Data and Robotics Partnership) (RIA)

Applications are being accepted for the following topic: Pushing the Limit of Robotics

This topic is part of the call: Digital and Emerging Technologies for Competitiveness and

Cognition (AI, Data and Robotics Partnership)

Deadline: October 21, 2021

The 3rd NOAA

Workshop on Leveraging

September 13-17, 2021

Al in Environmental Sciences

In addition, depending on the focus of the proposal, the results are expected to contribute to at least one of the following expected outcomes Smarter robots with improved capabilities, functionalities (including complex functionalities such as manipulation of delicate, irregular, dynamic or deformable Smooth and trustworthy (including safety and reliability) human-robot collaboration adaptation of robots in human-robot interactions.

UPCOMING EVENTS

Hybrid Event The Conference & Event Center Niagara Falls Niagara Falls, New York

Submit Your Abstract Today!

Workshop 2: Taking Concrete Steps as an Anti-Racist Researcher -Critical Participatory Data Collection and Analysis Methods

FUNDING ANNOUNCEMENTS, AWARDS AND ACCOMPLISHMENTS **Enhancing the NOVA Node with 5Gmm Wave Capabilities** PI & Co-PIs: Wijesekera, Duminda, Zeng, Kai, Mark, Brian L, Wang, Yue, Kan, Cing-Dao, Yu, Bo, Duric, Zoran, Costa, Paulo Cesar, Wei, Mingkui, Yang, Chi, College of **Engineering & Computing**

Funding source: US Department of Defense **Networks for Mission-critical Cyber-Physical Systems**

We would love to hear your research activities, awards and recent publications. We are also working with your colleges and others in compiling this information to keep university leadership, policy-makers, businesses, and organizations apprised of digital innovation-related research activities at Mason. Whether you have a success story or concern or an idea, we are eager to hear from you. Email us at idia2@gmu.edu

VSE News, July 20, 2021 Share with us!

Dr. Ali Andalibi Dr. David J. Miller Andalibi & Miller Are Awarded I-Corps Supplemental Grant to Engage the Traditionally Underserved This supplemental grant will support three I-Corps Ambassadors from traditionally underrepresented and underserved backgrounds to conduct outreach to Mason's diverse student body and work with Mason's thirty-seven I-Corp faculty—"I-Corp Technical Leads"—to create a sustainable community of entrepreneurs at Mason. If you're an innovator and interested in participating in NSF I-Corps at Mason, email us for more information or visit our webpage. Additionally, the grant will support the production of two hackathons over the next academic year—the first, in Fall 2021 Semester will be themed "Health X". The Center's Dr. David J. Miller and Dr. Ali Andalibi, Senior Associate Dean, College of Science, are currently developing networks, timelines, and program features for this fall event. This supplemental grant brings the total I-Corps funding to \$590,000. We are actively looking for collaborators for the fall hackathon. Contact ciemason@gmu.edu for more information. **Innovation Commercialization** Assistance Program RGINI 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, which provides a 4x increase in 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 on to participate in NSF National I-CORPS and receive grants from the NSF, NIH, DoED, and others. <u>Learn more</u> or mail the program's director, Josh Green, at <u>jgreen45@gmu.edu</u>. **JOB/INTERNSHIP OPPORTUNITIES Full-time Opportunities** Digital Content Producer at Univision Communications Inc - Apply here Software Development Engineer at AWS - Apply here **Internship Opportunities** Virtual Digital Media Intern at Valkyrie Ranch LLC - Apply here Software Development Engineering Intern at AWS (Summer 2022) - Apply here

Funding source: Virginia Research Investment Fund Funding source: NASA-Goddard Space Flight Cent Highly Corruptive and Hard to Break Obfuscation

PI & Co-PIs: Sasan, Avesta Croitoru, Arie, College of Engineering & Computing Collaborative Research: CPS: Medium: Real-time Criticality-Aware Neural PI & Co-PIs: Yao, Shuochao, College of Engineering & Computing Funding source: National Science Foundation **IDIA IN THE NEWS** Expanding the talent pipeline with community engagement and corporate partners, Mason Professor Receives Prestigious FDL Award, COS News, July 21, 2021 Mason to participate in new five-year \$20 million grant, GMUNews, July 29, 2021

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