-WEEKLY-

Institute for

Digital InnovAtion



ANNOUNCEMENTS =

Inaugural IDIA Predoctoral Fellows Cohort

We are very excited to announce our first cohort of IDIA predoctoral fellows joining our IDIA community: Jinyi Kim, School of Computing; Soelem Aafnan Bhuiyan, School of Engineering; Facundo Nicolas Airaudo, College of Science; and Michael Timothy Crawshaw, School of Computing. The fellows are embarking on ambitious, convergent, and transdisciplinary research agendas to improve the wellbeing of our society, help us become more climate resilient, improve our ability to respond to pandemics, and advance our digital infrastructure.

The project abstracts and 2-minute video presentations that the fellows have put together to describe their projects can be found at: <u>https://idia.gmu.edu/idia-predoctoral-fellows/</u>.

Naoru Koizumi Receives NSF Award to Study the Illicit Kidney Trade



Congratulations to Naoru Koizumi from the Schar School of Policy and Government for her award of \$999,941 from the National Science Foundation for her project, D-ISN: Evolution of Global Illicit Kidney Trade Networks: Identification, Reconstruction, and Disruption.

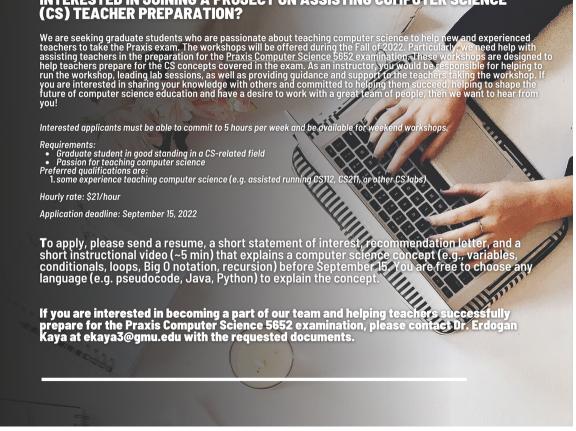
Kidney trafficking is significantly understudied compared to other types of trafficking networks, despite the rising concern about this type of crime in recent years. The project aims to develop a general framework for modeling the evolution of transnational kidney trade networks, which, in turn, enables the exploration of effective disruption strategies.

STUDENT OPPORTUNITIES=

Seeking Computer Science Graduate Students for the Praxis

<u>Workshop</u>

INTERESTED IN JOINING A PROJECT ON ASSISTING COMPUTER SCIENCE



Meta Research PhD Fellowship

The Meta Research PhD Fellowship program is designed to support promising doctoral students who are engaged in innovative research related to computer science and engineering at an accredited university.

Applications are open to all full-time PhD students currently involved in ongoing research who are enrolled in an accredited university in any country. We encourage all people of diverse backgrounds and experiences to apply. Applications are evaluated based on the strength of the student's research statement, publication record, and recommendation letters.

The Fellowship Award Includes:

- Tuition and fees paid for the academic year (up to two years/four semesters)
- A \$42,000 annual stipend to cover living and conference travel costs
 Access to the annual Fellowship Summit
- Various opportunities to engage with Meta researchers

More information is here.

Deadline: September 20, 2022

Google PhD Fellowship Program

Google Research

The Google PhD Fellowship Program was created to recognize outstanding graduate students doing exceptional and innovative research in areas relevant to computer science and related fields. The fellowships support promising PhD candidates of all backgrounds who seek to influence the future of technology. Google's mission is to foster inclusive research communities and encourages people of diverse backgrounds to apply.

PhD students must be nominated by their university. Applications should be submitted by an official representative of the university during the application window.

More information is here.

Deadline: End of September 2022

CCI OPPORTUNITIES

CCI NoVa Node Cybersecurity Undergraduate Internship

Under Supervisor direction and mentoring, the selected intern will have the opportunity to process (fuse and correlate) data from multiple open source or other provided databases; develop Change Detection Algorithms to detect abnormalities in an environment; detect small and/or incremental change(s) otherwise difficult to detect with traditional algorithms, given the slight degree of change(s), over prolonged periods of time; predict and/or forecast disturbances – leverage change detection algorithms to forecast possible environmental disturbances; data validation using alternate sources; gap analysis – identify information ambiguities and/or gaps to ensure reliability/validity of data; ambiguity resolution – leverage historical data to reduce ambiguities in current data; and utilize these prediction algorithms to forecast potential threats to the environmental (natural, political, economic, military, social)

To apply, please submit resume and unofficial transcript directly to the Dr. Sherry Crissman at sherry.crissman@gmu-rprc.org. Make sure to mention "CCI Student Internship - Application" as the subject of your email.

More information is available <u>here</u>.

Questions? Contact Jordan Mason at jmason29@gmu.edu.

VARIOUS OPPORTUNITIES =

US Army Automotive Research Center Call for White Papers

A few important updates: Per the Army, there are two ways to dramatically improve your odds of winning support for your proposal.

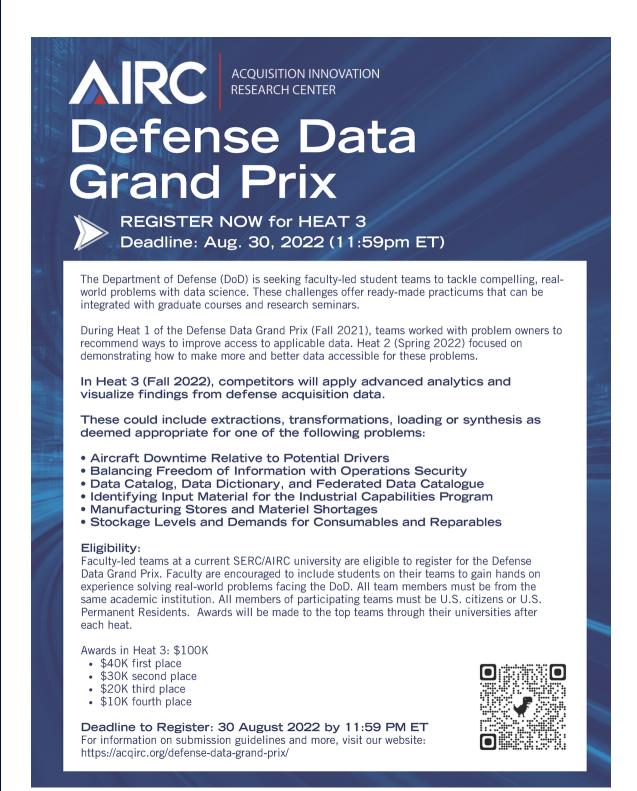
- Consider proposing a summer research internship to work in the laboratories at the Army's Ground Vehicle Systems Center in Warren, MI (near Detroit). What better way to learn the mission requirements and do impactful research than through a hands-on experience? The Army is interested in hosting your students or you. This opportunity is limited to US citizens and there is preference for those with a clearance or willingness to obtain a clearance. Summer housing expenses and a stipend are eligible expenses to include in your proposal.
- Collaboration with faculty at other ARC partner universities is encouraged.

More information is <u>here</u>. On August 12, the ARC held a webinar on the call for white papers. View the recording <u>here</u>.

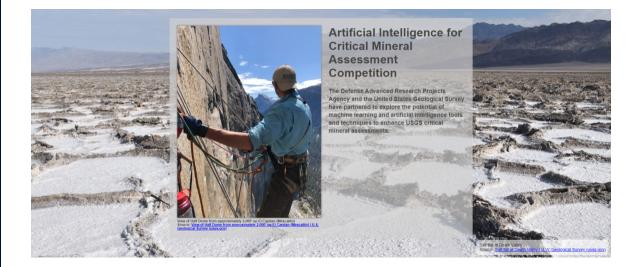
Questions? Contact Mike Bunting at mbuntin@gmu.edu.

Deadline: September 2, 2022 at 5 p.m. (Expect Feedback September 28.)

Defense Data Grand Prix Heat 3



<u>Artificial Intelligence for Critical Mineral Assessment</u> <u>Competition</u>



The United States depends on a variety of raw, non-fuel materials dubbed "critical minerals" to manufacture products considered essential to national security. These products can range from rare earth minerals in electric motors and generators, to the carbon fiber used for airplanes. Increasing demand, coupled with limited domestic supply and increasing reliance on foreign companies to import these critical minerals, poses significant risks to the U.S. supply chain. DARPA has partnered with the U.S. Geological Survey (USGS) to explore the potential for machine learning and artificial intelligence tools and techniques to accelerate critical mineral assessments. The goal is to significantly speed up the assessment of the nation's critical mineral resources by automating key steps in the process.

Competition registration for the first challenge on map georeferencing opens **August 15**; registration for the second challenge on map feature extraction opens **August 29**. For each of the two challenges, DARPA will award \$10,000 for the first prize, \$3,000 for the second prize, and \$1,000 for the third prize in October 2022.

More information is <u>here</u>.

Call for Applications: Azure Accelerator Program for Research

CLASS





CloudBank

Do you work on a project related to machine learning, deep learning, or image processing and analysis? Are you interested in harnessing the power of cloud computing for your research? Internet2 CLASS and Microsoft Azure are collaborating on an exciting opportunity: the Azure Accelerator Program for Research!

This 10-week immersive, cohort-based program will provide the opportunity for the research and education community that Internet2 serves to explore how cloud computing can accelerate your research, leverage the vast array of data science tools and services that Azure provides, and ultimately arrive at better and faster scientific results!

More information is available on the <u>blog post</u>. See the <u>Call for Applications</u> or jump straight ahead and <u>submit</u> an <u>application</u>. Send along any questions to <u>class@internet2.edu</u>.

Deadline: September 10, 2022

= FUNDING OPPORTUNITIES —

Deadline Extended for CHAOTICGOOD HOGWARTS BAA for Continuing Education For questions or assistance, contact Mike Bunting at <u>mbuntin@gmu.edu</u>. Deadline: September 2, 2022

Sony Electronic Inc - Faculty Innovation Awards Deadline: September 15, 2022

> Defense Advanced Research Projects Agency (DARPA) Announcements For questions or assistance, contact Mike Bunting at <u>mbuntin@gmu.edu</u>.

DARPA Proposer's Day Date: September 29, 2022

DARPA BAA: Ouija, Technical Area- 2 (TA-2) Proposal Due: September 23, 2022, 4 p.m.

DARPA BAA: Ice Control for Cold Environments (ICE) Proposal Abstract Due: September 22, 2002, 4 p.m.

Full Proposal Due: November 8, 2022, 4 p.m.

DARPA BAA: Advanced Propulsor, Experimental (APEX) Proposal Due: September 27, 2022, 5 p.m.

DARPA BAA: Next Generation Microelectronics Manufacturing (NGMM), Phase 0 Proposal Due: September 21, 2022

— IDIA AFFILIATION —

Did you know that, as an IDIA faculty affiliate, you are eligible to:

Compete for internally funded IDIA projects

Serve as IDIA Advisory Council members

Receive support for IDIA relevant events

Get featured in our next weekly: IDIA Weekly Spotlight

Become part of the <u>dynamic multidisciplinary faculty network</u> focused on digital techniques and technologies to advance fields as diverse as finance, education, built infrastructure, science, economics, agriculture, health, transportation, entertainment, national security, and social justice.

There is no financial burden to you or your departments for affiliation with the institute. Participation in IDIA does not prevent its members from being associated with other university centers. If you are not already affiliated, we encourage you to submit your profile <u>here</u>.

SHARE WITH US —

We are eager to hear from you! As we work with your colleges to compile updates on digital innovation-related research activities at Mason, we would love to hear about your research activities, awards, and recent publications. Please share any successes, concerns, or ideas with us at **idia2@gmu.edu**



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