IDIA Predoctoral Fellowship Program https://idia.gmu.edu/predoctoral-fellowships/

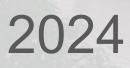
IDIA Office Hours

Amarda Shehu, PhD Associate Vice President of Research, Institute for Digital InnovAtion(IDIA) Professor of Computer Science, College of Engineering and Computing

Kammy Sanghera, PhD Executive Director, Institute for Digital InnovAtion(IDIA) Professor of Information Sciences and Technology, College of Engineering and Computing



April 8, 2024





About |D|A Three Themes

IDIA Mission & Focus

Engaging researchers, innovators, and scholars in cutting edge work to shape the future of our digital society while promoting equality, wellbeing, security, and prosperity.

Technology

New algorithms, digital techniques and technologies

Theme 1

Systems





Digital Society

Engaging in critical reflection that examines the implications of digital innovation ensuring social, ethical, political, and economic impact

Theme 3

Developing and deploying computing systems to advance fields as diverse as finance, education, national security, and social justice

Theme 2



IDIA Predoctoral Fellowship Program: Intent & Focus

Program Intent

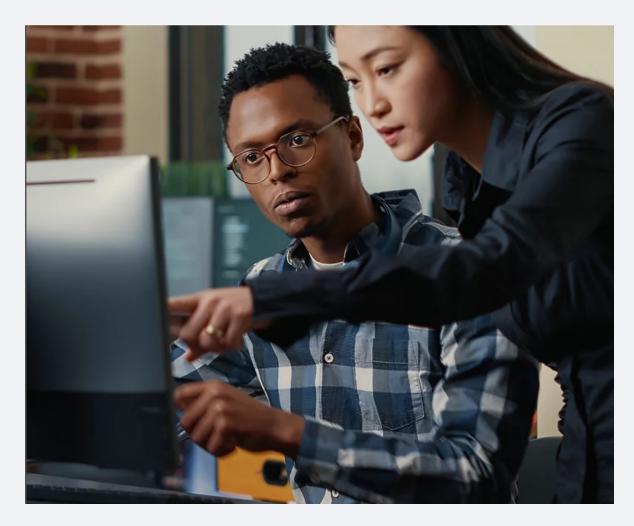
- Instigate, support, and grow ambitious, convergent, interdisciplinary research that directly aligns with IDIA's mission and focus
- Position graduate students as the hub that connects diverse spokes permeating the various units and disciplinary expertise on campus
- **o** Strengthen IDIA research community and identity

Focus of this Program STUDENTS









IDIA Predoctoral Fellowship Program: Intent & Focus

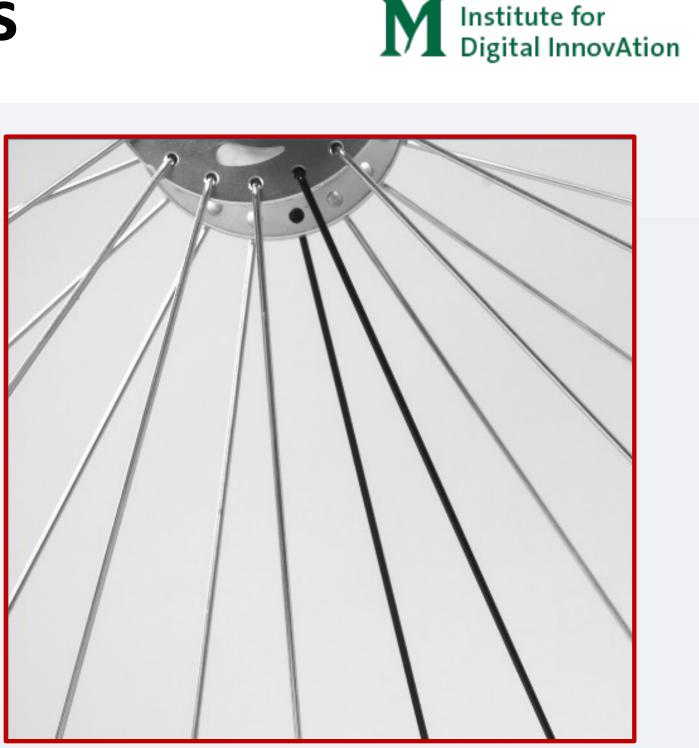
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Note on FY25:

We encourage applications that explore use cases of generative AI and more broadly the intersection of digital innovation and critical emerging technologies.





IDIA Predoctoral Fellowship Program: Meet Previous Winners

Cohort Model:

https://idia.gmu.edu/idia-predoctoral-fellows/

First Cohort of FY23



A Multi-level Approach to **Measuring Risks** for Positive Youth Outcomes



A Data Assimilation Technique to Improve the **Monitoring and Forecasting of Coastal Hazards**

Soelem Aafnan Bhuiyan (Civil & Env Eng)

Jinyi Kim (Inf Sci & Tech)





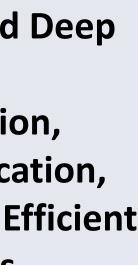
Optimal HVAC Outlay to Minimize Pathogen **Transmission**



Guarantees in **Distributed Deep** Learning: Computation, Communication, & Sample Efficient Algorithms

Facundo Nicolas Airaudo (Physics)

Michael Timothy Crawshaw (Computer Sci)



IDIA Predoctoral Fellowship Program: Meet Previous Winners

Cohort Model:

https://idia.gmu.edu/idia-predoctoral-fellows/

Second Cohort of FY24



A New Data-Driven Machine Learning Framework to **Predict Dynamics of Infectious Diseases Incorporating** Human Behavior in **Epidemiological Models**



Dibyendu Das (CSC)

Alonso Gabriel Ogueda (Mathematics)



Memory: Leveraging Past Experiences to Accelerate Future Motion Planning



Human-Al Cooperative **System to Detect Automated** Deepfake Deception

Erika P De Los Santos (Psychology)

IDIA Predoctoral Fellowship Program: Eligibility

U Who Can Apply

• Full-time Mason Ph.D. and Master students

U Preparatory Work

of faculty mentors across the Mason ecosystem

How to Apply

• The application template (and other submission information) can be found at: https://idia.gmu.edu/predoctoral-fellowships/

Application Deadline: May 06, 2024, 11:59 PM EDT



• Student applicants are encouraged to reach out to and form an interdisciplinary team



IDIA Predoctoral Fellowship Program: Structure

- **Community building:** take part in community-building events with other IDIA fellows and faculty
- **Collaboration:** collaborate with other fellows to organize and support IDIA-sponsored events, such as seminars, panels, workshops, and tutorials
- Networking: connect with IDIA's rich network of academic, government, think tank, and industry partners around digital innovation
- Engagement: engage with Mason Innovation Exchange and Mason Enterprise
- Celebration: an end-of-year 'Come Meet our Fellows' meeting will celebrate and disseminate the achievements of the IDIA predoctoral fellows



IDIA predoctoral fellows will be an integral part of the IDIA community. As such, they will have the *opportunity* to:





IDIA Predoctoral Fellowship Program: Award Information

- An IDIA predoctoral fellowship includes AY GRA stipend, tuition, and healthcare
 - resides

□ Fellowship Duration

- Up to three years
- report and availability of funds

Numbers of Fellowships

• Up to three for FY 25 contingent upon quality of submissions



• Stipend amount will be consistent with the guidelines of the unit where the student

• Renewed on an annual basis contingent upon a favorable internal review of the annual





IDIA Predoctoral Fellowship Program: Other Information

Review Process

- Awards will be made on a competitive basis
- Applications will be reviewed by interdisciplinary senior researchers and faculty

I For Other Information

o https://idia.gmu.edu/predoctoral-fellowships/

Questions formulated after these office hours

Email: idia2@gmu.edu

We now welcome any questions



Q on Program Structure

• What do the community-building events look like?

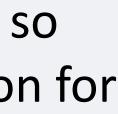
- What does the interaction with the MIX & MEC look like?
- How are fellows engaging industry and think tanks?

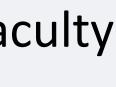
Community-building events: we think of them as "check-ins" and envision three events; one at the beginning, so fellows meet one another, one in the middle to learn of what is working, what is not working (good information for us), and one at the end of the year.

MIX & MEC: We see a great opportunity to position fellows as the next innovators and entrepreneurs. So, we envision a light, tiered, customizable educational experience we will design in partnership with MIX & MEC.

External engagement: IDIA regularly organizes panels, workshops, tutorials that bring external partners and faculty together. We will give the opportunity to fellows to connect with these partners at these events. They can introduce speakers, moderate sessions, and even help us put the programs together. We do want their input and their voice.









Q on Review and Notification Timeline

How quickly will decisions be made?

- Applications in: May 06th
- Panel reviewed by mid June
- Goal: notifications to students the last week of June
- **G** Fellowship offers signed by mid August

