Dear students -

As a part of Industrial Immersion Program (IIP), we have funding available for a few Summer 2022 research projects that are crossing disciplinary boundaries and/or strengthening connections with industry or national labs. The funding is made available by the IIP program and all Math graduate students (MS and PhD, all areas of research) are eligible. Project duration may vary from one month to the whole summer and compensated according to the length and level of the appointment.

IIP projects provide networking opportunities and typically allow students to explore research environments that are different from academia. Current partnering organizations include NIST, NIH, NRL, MITRE, ARL, APL, BlackSky, Argonne National Lab, Booz Allen Hamilton, Ford, Mosaic ATM and others.

Students interested in learning more about this opportunity should email me by February 21 at igriva@gmu.edu and include the following information in your email:

1. Your name, Ph.D. or Master's student?
2. Do you currently have a research advisor? If so, please indicate who you are working with.
3. Do you currently have funding as Teaching or Research Assistant?
4. Will you be able to participate without financial support?
5. Have you passed any preliminary exams? If so, how many and when?
6. What are your overall research interests in mathematics?
7. Do you have an idea of a project that can be pursued in collaboration with industry/national labs? If so, do you know someone you could collaborate with?
8. If you answered no to the previous question, are you interested in being connected with a suitable project?
9. Indicate if any of the following areas are of potential interest to you (select at least 3 areas, rank them with 1, 2, 3 in the order of your preferences, 1 is the top preference).

    - Biological/biomedical applications
    - Materials science/materials engineering modeling, modeling of 3d printing technologies
    - Geospatial applications/satellite imaging
    - Quantum computing/quantum algorithms/quantum information theory
    - Algorithms for threat detection
    - Aerospace applications, unmanned air vehicles path planning
    - Machine learning/data science
    - Network science/community detection
    - Non-fungible token (NFT) related problems
    - Telecommunications
    - Other

10. Indicate which of the following you consider your areas of strength:

    - Numerical analysis and computation
    - PDE
    - ODE
    - Graph theory
    - Optimization
    - Machine learning/deep learning/data science
    - Abstract algebra
    - Linear algebra
    - Geometry/topology
    - Combinatorics
    - Other

11. What programming languages do you know? Number of years using those programming languages.
12. Do you have any other information that would be relevant for IIP program consideration?

Funding decisions will be made on a competitive basis and applications will be accepted until all positions are filled.