Ph.D. Positions Available
(Start Date: Winter/Fall 2023)

Π-CoLab: Privacy, Inference, and Communications Laboratory
Knight Foundation School of Computing and Information Sciences
Florida International University

Director: Farhad Shirani

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Overview

Several fully funded PhD positions are available at the Privacy, Inference, and Communications Laboratory (**Π**-CoLab) within the Knight Foundation School of Computing and Information Sciences at Florida International University. We are looking for highly motivated candidates with interest/background in the broad areas of Privacy, Information Theory, Graph Theory, Machine Learning, and Data Science.

The positions involve theoretical research with high practical relevance focused on one of the following projects:

1. An information theoretic study of privacy in networks under active fingerprinting attacks

2. Fundamental limits and practical algorithms for graph matching with applications in passive privacy attacks

3. Energy efficient communication in millimeter wave networks

4. Scheduling algorithms for multiuser cellular networks

5. Optimal code structures in multiterminal communications

6. Feature selection and function approximation algorithms

In general, the tasks include programming, mathematical analysis, documentation and publication, and collaborative work with internal and external collaborators. A detailed summary of these projects and some of the relevant prior works in our research group can be found at our website https://pi-colab.github.io/.

Your Application

Applicants with background or interest in related research are welcome to apply. If you are interested to join our group please send your cover letter and CV to fshirani@fiu.edu with the subject `PhD Application - FIU'.

Preferred Start Date

The positions are available immediately with a preferred start date of Winter/Fall 2023.

Personal Qualifications

Applicants should have completed their B.Sc. degree in Computer Science, Electrical Engineering, or relevant areas before their start date. An M.Sc. degree in CS, EE, or relevant areas is preferred but not required. Applicants should show profound knowledge of underlying concepts related to their project, should be fluent in spoken and written English, and be able to work independently and responsibly. Ideally, applicants should have experience in programming in one of the following programming environments: MATLAB/ Python/ PyTorch/ Tensorflow/ C++. Ideal applicants should have knowledge in one or more of the following topic areas: information theory, graph theory, privacy, communications, and machine learning. Additionally, the chosen applicant should be a team player and should be equipped with organizational talent.

Funding and Resources

The KFSCIS at FIU provides a vibrant and interdisciplinary research environment at the interface between information science, computer science, mathematics, and physics, offering significant scientific freedom in choosing your research path. We offer full-time RA/TA employment with a competitive salary, contingent on the fulfillment of professional and personal requirements. We offer a flexible and well-equipped working and research environment with access to the necessary computational resources to enable your success in the research tasks.

About Florida International University

Florida International University is a top public university in the United States that drives real talent and innovation in Miami and globally. The school is ranked at the highest tier of Carnegie Classification of Institutions of Higher Education as a `Very High Research Activity (R1)' institution. Today, FIU has two campuses and multiple centers. FIU serves a diverse student body of more than 56,000 and 270,000 Panther alumni. U.S. News and World Report places dozens of FIU programs among the best in the US. The school is located in Miami, FL which has one of the fastest growing and most vibrant tech environments in the US and globally.