

We are looking for highly motivated, hardworking, and self-driven PhD students to work in the areas of applied cryptography and network security. We have (fully funded) multiple PhD positions, starting from Fall 2018 (August 2018) or Spring 2019 (January 2019) at University of South Florida (USF). *Attila A. Yavuz will move to the Department of Computer Science and Engineering at University of South Florida (CSE USF) at Fall 2018.*

USF is a Rank 1 Research University and offers a competitive salary with an excellent working environment, all within a close proximity of high-tech industry and beautiful beaches of sunny Florida. Tampa/Orlando area is in Florida High Technology Corridor, and harbors major tech and research companies. The qualified candidate will have opportunities for research internship and joint-projects with lead-industrial companies. The candidate will work on the design, analysis and deployment of new cryptographic schemes and protocols in various practical application domains. Research topics include but is not limited to:

- **Cryptocurrency and Blockchains**
 - Use of blockchain infrastructure to enhance cyber-security
- **Secure and Reliable Internet of Things and Systems (IoTs)**
 - Post-Quantum Public Key Infrastructure for IoT
 - Light-weight cryptography for implantable medical devices
 - Delay-aware authentication in smart-grid systems
- **Secure and Trustworthy Cloud Computing**
 - New searchable encryption and Oblivious RAM (ORAM) schemes
 - Oblivious and private searches on the cloud
 - Distributed cloud security
- **Breach-Resilient Infrastructures (Protection of Genetic/Medical Data)**
 - Trusted hardware-based searchable encryption and ORAM
- **Trustworthy Unmanned Aerial Systems (Aerial Drones)**
 - Cryptographic frameworks to protect aerial drones
 - Secure aerial drones for post-quantum era
- **Trustworthy Machine Learning (TML)**
 - Privacy-Preserving Machine Learning
 - Adversarial Machine Learning

The qualified candidate is expected to conduct innovative research on the aforementioned areas based on his/her experience and research interests. It is also expected of the qualified candidate to have solid backgrounds in Computer Science and Mathematics. Strong programming and system building skills are also expected. It is desirable (but not necessary) if the candidate has prior publications in cyber-security domain.

The candidate should fulfill the following requirements:

- A BS degree with a high-GPA and research experience.
- Very good programming skills (e.g., C, C++), familiarity with OS/Systems.
- Good Academic Writing and Presentation Skills.
- Having prior courses on cyber-security is desirable.
- MS degree in computer science, electrical engineering or mathematics is a big plus (high-GPA, courses on cryptography and/or network security).
- Publications in security and privacy will be regarded as additional merits.

To apply please send (by e-mail) the following documents:

- Transcripts
- Curriculum vitae
- Three reference letters (after pre-screening done, letter writers should directly send their letters to Dr. Yavuz, for exceptions, contact with Dr. Yavuz)
- Previous publications (preferred but not required)
- Motivation letter
- Research statement
- GRE and TOEFL/IELTS scores

Application deadlines

- To start at Fall 2018 (August 2018): **Apply to USF** by June 1, 2018
- To start at Spring 2019 (January 2019): **Apply to USF** by September 15, 2018

Contact: Dr. Attila A. Yavuz

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Attila A. Yavuz will move to **the Department of Computer Science and Engineering at University of South Florida (CSE USF) at Fall 2018.**

<http://www.usf.edu/engineering/cse/>

He will continue to be an adjunct professor at Oregon State University (OSU) and University of Pittsburgh (UPitt). His current webpage at OSU (to be ported to USF soon):

<http://web.engr.oregonstate.edu/~yavuz>

After pre-screening is done, if selected, you will be contacted for an online interview process.