VINUNIVERSITY

COLLEGE OF ENGINEERING AND COMPUTER SCIENCE

Research Assistant – Cybersecurity

Location: VinUniversity, Gia Lâm, Hà Nội, Vietnam
Position Type: Full-time / Part-time
Salary: Negotiable

Job Description

We are seeking a **motivated** Research Assistant to join our cybersecurity research team at **VinUniversity**. This position is ideal for individuals who are passionate about cybersecurity, have strong mathematical skills, and are interested in academic research. The primary focus of the role will be on **publishing research papers** in top cybersecurity conferences and journals.

This position provides **training and mentorship**, making it a great opportunity for those who wish to pursue a **Master's or PhD scholarship** in the future.

Key Responsibilities

- Conduct research on cybersecurity topics.
- Develop and implement research prototypes using **C and Python** (preferred but not mandatory).
- Collaborate with the research team to write and publish **high-quality research papers**.
- Analyse and interpret complex data using mathematical and statistical methods.
- Participate in research meetings, brainstorming sessions, and academic discussions.

Project Summary

As the Internet of Things (IoT) continues to expand, ensuring the security of connected devices against emerging threats is a critical challenge. **Post-Quantum Cryptography (PQC)** is designed to resist attacks from quantum computers, offering long-term security solutions for modern communication systems. However, integrating PQC into resource-constrained IoT devices remains a significant hurdle due to computational overhead and efficiency constraints.

This project aims to **develop an innovative method for integrating PQC into IoT systems while optimizing performance using Artificial Intelligence (AI)**. By leveraging AI-driven optimization techniques, the project seeks to enhance the adaptability and efficiency of PQC algorithms for IoT environments. Key components of this research include **lightweight cryptographic implementation, AI-based parameter tuning, and real-time security evaluation**.

The proposed approach will be tested in simulated and real-world IoT environments to assess its feasibility, efficiency, and security resilience. This project contributes to the advancement of **quantum-resistant security solutions**, bridging the gap between next-generation cryptographic standards and practical IoT deployment. The findings will provide a foundation for future research in **secure AI-driven cryptographic systems**.

Requirements

Must-have:

- **Strong motivation** to learn and conduct research in cybersecurity.
- **Good mathematical skills**, especially in areas related to cryptography, statistics, and algorithms.

Preferred:

- Programming experience in **C and Python** (or willingness to learn).
- Experience with academic writing or a willingness to learn how to write research papers.
- English proficiency of at least IELTS 5.5 (or equivalent) to effectively read and write academic papers.

Benefits

- **Training and mentorship** from experienced cybersecurity researchers.
- Opportunities to **publish research papers** in top-tier cybersecurity venues.
- A strong research environment with collaboration opportunities.
- A stepping stone for applying to **master's and PhD scholarships** in cybersecurity.
- **Salary is negotiable** based on experience and qualifications.

How to Apply

Interested candidates should submit their **CV** to:
Dr. Nguyen Dinh Duc Nha
Email: nha.ndd@vinuni.edu.vn

The project also involves collaboration with **distinguished professors at VinUniversity and leading universities in Australia.** For more details on the research team and related projects, visit Dr. Nha's Website:

https://nducnha.github.io/my-website/

Applications will be reviewed on a rolling basis. **Motivation is the most important factor!**

We look forward to working with passionate individuals who are eager to make an impact in cybersecurity research!