

Raihan Ahmed

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EDUCATION

Ph.D. in Computer Science

University of Utah, Kahlert School of Computing

Salt Lake City, UT

Anticipated June 2026

M.S in Computer Science

University of Utah, Kahlert School of Computing

Salt Lake City, UT

Aug. 2021 - May 2024

Courseworks: Algorithms, Data Structure, Adv OS Implementation, Computer Architecture, Software & systems Security, Applied Software Security, Software Verification, Vis for Data Science

EXPERIENCE

Meta

Menlo Park, California

May 2025 – Aug. 2025

Software Engineer intern

- Identified limitations in manual asset classification processes for securing user data, highlighting significant false positives/negatives due to lack of automation.
- Identify a scalable solution **to improve speed and accuracy**.
- Developed and implemented **machine learning models to automate asset classification**. Then, compared candidate models, selected the best, and deployed it into production.
- **Significantly reduced the aggregation process timeline** from months to a fraction of the time.

University of Utah

Salt Lake City, UT

Aug. 2021 –Current

Research Assistant

- Advanced persistent threats (e.g., Stuxnet, Ukrainian power grid attack) exposed vulnerabilities in Industrial Control Systems (ICS).
- Built ICSTracker using C++ & LLVM **to instrument controllers, enabling full activity tracing**.
- **Simulated multiple cyberattacks following MITRE ATT&CK framework on testbeds** (Fischertechnik factory, SWaT water system) to validate robustness.
- **Traced attack origins in real-time with the tool successfully**, demonstrating ability to enhance ICS security and contributing to peer reviewed publication

University of Utah

Salt Lake City, UT

Teaching Assistant

- Teaching Assistant for CS 4400-001 - Computer System in Fall-2022 & Fall-2024
- Teaching Assistant for CS 6956-001 - Software and System Security in Spring-2023

TECHNICAL PROJECTS

Interactive Visualization tool - Programming lang - Javascript

Sept 2022 – Dec 2022

- Formulated project is to build an interactive tool for video games.
- Built website with javascript to explore video game sales by year and platform.

Fuzzing XPDF-4.05 - Programming lang - C++, LLVM

Aug. 2022 – Dec 2022

- Extended fuzzing campaign with static analysis (control flow + IR inspection) to guide fuzzing input generation.
- Improved open-source robustness by contributing bug reports and patches.

Arduino Uno Car Robot - Programming lang - C++, Arduino

May 10 - May 20, 2021

- Used arduino uno to build this toy car robot and controlled it with Bluetooth.

Cancer risk prediction app with machine learning - Programming lang - Python, Scikit-Learn

Jan 2019-Dec 2019

- Analyzed gynecologic cancer data using various machine learning algorithms to identify significant risk factors
- Developed a predictive algorithm using machine learning to assess the risk of cervical and ovarian cancer associated with stress

TECHNICAL SKILLS

Programming Languages: Python, C/C++, Javascript, C#, JAVA, PHP, React.js, Node.js, LLVM compiler tools

Technical Skills: Github, Docker, SQL, Pandas, Scikit-Learn, Matlab