Sadman Sakib

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EDUCATION

MS, Computer Sciences. University of Wisconsin-Madison

Aug 2022 – May 2024

Courses: Introduction to Operating Systems. Introduction to Computer Architecture.

B. Sc., Computer Science. Bangladesh University of Engineering & Technology Feb 2017 – May 2022 Courses: Computer Networks. Introduction to Database. Introduction to Compilers.

Computer Security. Theory of Computation. Data Structures and Algorithms. (GPA: 3.87/4.00)

TECHNICAL SKILLS

Languages: C, C++, Python, P4, Java, R, Shell scripts, LaTeX, MATLAB, Arduino, Javascript, HTML, SQL **Platforms:** Linux networking, Google Cloud Platform, AWS, Network Simulator 3, Proteus, Wireshark **Frameworks:** Docker, Kafka, MongoDB, PostgreSQL, Cassandra, Tensorflow, Keras, SKLearn, Vagrant

EXPERIENCE

Graduate Researcher, Disaggregated Storage Project

Jun 2022 – Present

Advisor: Prof. Ming Liu (UW-Madison)

Software tools: Intel Tofino SDK, P4 language, Python, C++, Linux networking

- Set up a programmable Tofino switch with ONL OS and BF SDE to run P4 programs.
- Wrote P4 programs for monitoring and management of network in a server cluster.
- Used NVMe-oF for remote disk access across server and storage nodes.

Lead Developer, IoT-VR Project

Jan 2020 – Feb 2022

Advisor: Prof. Matthew Caesar (UIUC)

Software tools: Python, C++, Docker, AWS, Kafka, Websocket, Github Actions, MongoDB.

- Designed simulation engine of Arduino and IoT devices using python and C++.
- Wrote unit and functional tests for server and simulator components.
- Coordinated feature development in backend and simulator teams of 10+ students.

Undergraduate Researcher, Federated Edge Computing Project

Feb 2020 – Oct 2021

Advisor: Prof. Ying-Dar Lin (NYCU) and Prof. Md. Shohrab Hossain (BUET)

Software tools: C++, Linux Networking, Python, Cassandra, OAI 5G, FreeDiameter, OAuth/OIDC.

- Co-authored 2 IEEE papers on transparent third-party authentication and application mobility in federated edge computing.
- Designed and implemented the testbed of federated LTE mobile edge networks on multiple PCs using linux networking tools, C++ and python.
- Implemented network protocols in telecom such as GTP, Diameter, S1AP etc.

PERSONAL PROJECTS

Radar: Detecting and Tracing Objects | Microcontrollers, Sensors, Android, Wi-Fi Module [Demo]

Predicting DNA Bendability | Python, Tensorflow, Sklearn, Numpy, Pandas, Matplotlib [Repository]

Bengali Handwritten Digit Recognizer | Keras, OpenCV [Repository]

Paint Project | C++, iGraphics [Repository]