S M Farhanur Rahman

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Summary Statement

Master's student looking for research opportunities for developing or testing software. I am motivated and eager to learn about program analysis techniques and to help improve the security of deployed software. My education has given me an understanding of both high level software and low level software. I believe that would make me quite flexible in what I could work in the program analysis lab. Whatever shortcomings I might have, I will put in the effort so that I can overcome those quickly.

Education

University of Texas at Dallas
August 2019 - May 2021, Richardson-TX

Master of Science in Computer Science

Overall GPA: N/A

Track: Systems

University of Texas at Austin
July 2015 - May 2019, Austin-TX

Bachelor of Science in Electrical Engineering

Overall GPA: 3.40/4.00

Primary Track: Software Engineering

Secondary Track: Computer Architecture & Embedded Systems

Jack E. Singley Academy
August 2011 - June 2015, Irving-TX

Overall GPA: 3.98/4.00

Focus: Engineering

Research Interests

- Software Development
- Operating Systems
- Autonomous Systems

Research Experience

Undergraduate Research Assistant
Sept 2017 - May 2018, Austin-TX

Used C++ and python to assist a Simultaneous Localization and Mapping (SLAM) program written by a UT professor on a Linux system. It gave me experience with the linux terminal and the process of downloading linux packages. My role in the programming portion mainly involved debugging and organizing the written code.

Teaching Experience

Undergraduate Teaching Assistant
Jan 2016 - Dec 2016, Austin-TX

My second year of undergrad I became a TA for an Undergraduate Studies course that freshmen were required to take. Through this opportunity, I gained leadership skills with the help of a tailored seminar, as well as, mentoring incoming college students. The course looked at societal issues involving race in the US, and I mediated discussions in the classroom based on the lectures.

Professional Experience

Applied Research Labs / Student Technician
May 2018 - July 2019, Austin-TX

I assisted Naval Research using Python and Matlab on a Linux-based system. Specifically, with python I completed a demo for data transmission using Confluent Kafka and also used postgreSQL to store the data. With Matlab, I did several projects including data labeling and Kernel Estimation.

Ruffalo Noel Levitz / Student Caller
Aug 2015 - May 2016, Austin-TX

Learned how to build rapport and communicate with parents and alumni of UT Austin. The communication was through phone calls and I successfully raised over $10,000 for the university in the time I worked there.

Academic Experience

Embedded Systems Projects
Various semesters, University of Texas at Austin

Weather Station: Implemented temperature sensor using I2C protocol on a custom PCB. Done in C using TI TM4C LaunchPAD. (Spring 2019)

Car Game: Designed and implemented a car game on the TI TM4C launchPAD in C. The game was based on pole position, where one can accelerate, and move the car left and right to avoid obstacles, until the finished line was reached. (Spring 2016)

Data Science Final Project
Fall 2018, University of Texas at Austin

Built a web scraper to extract song albums and artists from wiki. Used Spotify and Genius API to retrieve song lyrics and album art. Attempted to train dataset over GAN models to generate artwork when some lyrics were fed into the model.

Android Projects

Various semesters, University of Texas at Austin

Apartmate: Created an app for roommates in software design class with a team. The app will keep track of chores, groceries and calendar between the roommates. (Spring 2018)

MapApp: Used Google Maps API to show maps/street view of an address. (Spring 2018)

WeatherApp: Used Dark Sky API to collect weather information and displayed it on app. (Fall 2017)

Digital Logic Design Final

Spring 2017, University of Texas at Austin

Encoded the Basys FPGA board with VHDL to act as a calculator. Showed values on the 7-seg display.

Skills

Computer-skills

- Languages: Proficient in Java, C, Python. Familiar with C++, Assembly, VHDL, UML
- OS: Windows, UNIX, LINUX
- Web: HTML/CSS
- Databases: PostgreSQL
- Applications: Labview/Simulink

Soft-skills

- Excel budgeting
- Sales representative
- Event management
- Team management

Activities

- Volunteer: Pi Sigma Pi Organization, Austin City Limits, Explore UT, SXSW, Texas Tribune, Longhorn Halloween, Habitat for Humanity
- Grader, Engineer Your World
- Participant, Leadershape Institute
- Panelist, Southwest Popular/American Culture Association

Honors and Awards

- UT Austin Gateway Scholar
- Diploma, AP Cambridge Capstone Research Program
- 1st place, Local Unrated Chess Competition