

ARJUN ARUNASALAM

Incoming PhD Student at Purdue University, Indiana

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EDUCATION

Purdue University, West Lafayette, IN

Incoming PhD student in Computer Science

August 2020 - Present

University of Michigan, Ann Arbor, MI

Bachelor of Science in Engineering in Computer Engineering (*Summa Cum Laude*)

April 2020

GPA: 3.77/4.00

Relevant Coursework: Data Structures & Algorithms, Operating Systems, Introduction to Computer Vision, Intro to Computer Organization, Signals and Systems, Intro to Embedded System Design Programming Languages, Accelerators in AI and Health

WORK EXPERIENCE

IBM Research, Yorktown, NY

Research Intern

May 2019 – April 2020

- Conducted research on security analytics for microservice applications in cloud services specifically container based applications, resulting in successful vulnerability scanning of applications
- Developed RESTful APIs to ease interaction between different applications, enabling joint collaboration from multiple teams within the organisation
- Worked on automated remediation for vulnerable applications with a focus on operating system vulnerabilities, leading to successful patch up of vulnerable packages
- Developed User Interface for analytics project tool using JavaScript and HTML, interfacing with APIs to provide user friendly ways to view analytics results

University of Michigan Research Program, Ann Arbor, MI

SURE Summer Research Intern

May 2018 - July 2018

- Conducted research on improving battery life in IoT (Internet of Things) devices using collaborative sensing, culminating in submitting a research paper for potential publication
- Designed and generated synthetic data to be used in building decision trees to train a machine learning model
- Utilized python and C++ to configure camera and GPS hardware to analyse and configure sample rates, enabling us to understand and optimize power consumption values

Promosys Technology Sdn Bhd, Malaysia

Software Engineering Intern

July 2017 - August 2017

- Programmed music player for playing mp3 files using python GUI for client's use, leading to company using it immediately
 - Coded multithreaded TCP server using Raspberry Pi to store information in MySQL database for nurse call system, fixing previous error in system
 - Implemented push notification feature using sensor data from Raspberry Pi via 3rd party app, diversifying the program's features
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SKILLS

Languages: C++, Python, C, Golang, MATLAB

Technologies: Docker, Git, RESTful APIs, Quartus

Hardware: FPGA programming, SOC programming

Platforms: Unix, Linux (Rhel), Windows

PROJECTS

University of Michigan, Ann Arbor, MI

Intro to Embedded Systems

September 2018 - December 2018

- Developed a gesture controlled car game that kept score based on the color it detected, gaining experience in sensory devices
- Used C, Verilog and ARM assembly to code and debug SOC based project, resulting in achieving 92% on the project

Intro to Computer Security

January 2018 - April 2018

- Carried out forensic analysis on a disk image, resulting in successful gathering of evidence
- Conducted dead analysis on disk image, leading to collecting information to successfully get the system running
- Carried out live analysis of target system, to probe for more hidden information in system