Andy Plank

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Education

MASTER OF SCIENCE IN COMPUTER SCIENCE

- Purdue University – Anticipated May 2022
- GPA: 4.0/4.0

BACHELOR OF SCIENCE IN COMPUTER SCIENCE

- Purdue University – 07/2017 to 12/2020
- GPA: 3.96/4.0
- Graduated with Highest Distinction

Technical Skills

LANGUAGES

- JavaScript, Java, Kusto, Python, C#

FRAMEWORKS

- Bootstrap, React, Material

PLATFORMS

- Azure, AWS, Heroku, CircleCI, MongoDB

Experience

MICROSOFT | SOFTWARE ENGINEERING INTERN **MAY 2021 – JULY 2021**

- Created a PowerBI report for the Azure Server Performance team that provides daily live migration performance impact statistics.
- Decreased average Power Automate flow completion time from 11 minutes 55 seconds to 1 minute 46 seconds by improving Kusto query efficiency.
- Wrote new Kusto queries that cook Cirrus VM and Hyper-V host performance data by live migration phase.
- Gathered requirements from stakeholders and drove the design process to fulfill customer needs.

PURDUE UNIVERSITY | GRADUATE TEACHING ASSISTANT **JANUARY 2021 – PRESENT**

- Ensured student understanding of course material through daily office hours.
- Graded course work within a week so students could reliably track their progress in the course.
- Assisted in reviewing homework and writing answer keys so the students had quality assignments.

EPIC SYSTEMS | SOFTWARE ENGINEERING INTERN **MAY 2020 – AUGUST 2020**

- Proposed a new method of growth chart graphing to allow physicians to easily identify abnormalities in babies.
- Designed and conducted a feature usability study including both national and international customers.
- Refactored a graphing module using C# and React to reduce cyclomatic complexity by 88%.

PURDUE UNIVERSITY | RESIDENT ASSISTANT **AUGUST 2019 – DECEMBER 2020**

- Promoted an inclusive community on the floor by planning and hosting weekly events for 50 residents.
- Mediated conflicts between roommates to provide resolution in a timely manner.
- Interviewed potential Resident Assistant candidates for the following school year.

QUICKEN LOANS | SOFTWARE ENGINEERING INTERN **MAY 2019 – JULY 2019**

- Designed a web application with Angular to manage and track the intake of new tech ideas at Quicken Loans.
- Enabled application hosting by configuring infrastructure on AWS, including S3s, Lambdas, and API Gateways.
- Contributed to a feature that reduced the processing time of escrow deletion from 60 days to 8 days.
- Gained experience in SAFe practices through daily standups, release planning, retrospectives, and design sessions.

Projects

TCP DOS SHREW ATTACK SIMULATOR

- Used Mininet and Python to reproduce the results found in “Low-Rate TCP-Targeted Denial of Service Attacks”.
- Implemented a square-wave DoS attack at 3% duty cycle capable of bringing network throughput to near zero.

PAXOS LAB

- Implemented the Paxos protocol for a graduate level distributed systems course, ensuring a distributed key-value store system can reach consensus in an unreliable network.

Volunteer Work

MENTORS FOR ASPIRING GIRLS IN COMPUTING | MENTOR **AUGUST 2018 – MAY 2020**

- Volunteered 20 hours a semester at local middle schools to increase interest in computing among young women.
- Demonstrated computing concepts using breadboards, Minecraft, web design, and Lego Mindstorm.