# Andy Plank

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## Education

**MASTER OF SCIENCE IN COMPUTER SCIENCE**
- Purdue University – 2021 to 2022
- **GPA**: 3.97/4.0

**BACHELOR OF SCIENCE IN COMPUTER SCIENCE**
- Purdue University – 2017 to 2020
- **GPA**: 3.96/4.0
- Graduated with Highest Distinction

## Technical Skills

**LANGUAGES**
- JavaScript, Typescript, Java, Kusto, Python, C#

**FRAMEWORKS**
- React, Bootstrap, Material, Electron

**PLATFORMS**
- Azure, Linux, AWS, Heroku, CircleCI, MongoDB

**TOOLS**
- Perfmon, Logman, Perf, Flame Graph, FIO

## Experience

**MICROSOFT | SOFTWARE ENGINEER**                                    AUGUST 2022 – PRESENT
- Researched under-performing areas of Azure server using tools like FIO, logman, perfmon, and flame graphs.
- Proved that the use of a different memory allocator would reduce CPU usage by 57% for local storage workloads.
- Identified lock contention issues that increased local storage throughput by 3.2 times.
- Placed 3rd of 34 teams in a company sponsored Hack the Box CTF event.

**PURDUE UNIVERSTY | HEAD GRADUATE TEACHING ASSISTANT**               JANUARY 2021 – MAY 2022
- Lectured 200 students on computer architecture during the professor's absence.
- Taught two lab sections of 24 students every week on course concepts such as ARM assembly and building circuits.
- Coordinated all computer architecture GTAs on course issues like covid related absences and grading.

**MICROSOFT | SOFTWARE ENGINEERING INTERN**                          MAY 2021 – JULY 2021
- Created a PowerBI report for Azure Server Performance that provides daily live migration performance statistics.
- Decreased average Power Automate completion time from 12 to 2 minutes by improving Kusto query efficiency.
- Wrote Kusto queries to compile host performance data by live migration phase.
- Gathered requirements from stakeholders and drove the design process to meet customer needs.

**EPIC SYSTEMS | SOFTWARE ENGINEERING INTERN**                       MAY 2020 – JULY 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 49 residents.
- Mediated conflicts between roommates to solve any issues residents had with one another.
- 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.

## Projects

**LEAGUE OF LEGENDS MUSIC PLAYER**
- Used Electron, React, and Spotify API to play music based on current League of Legends game statistics.

## 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.
- Taught computing concepts using breadboards, Minecraft, web design, and Lego Mindstorm.