Mohammad Al Faiyaz

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Experience

General Motors

Software Engineer, Infotainment Core-Apps March 2017 - Present

I am a developer for GM vehicles' Infotainment System. Involved in development of vehicle software for model years 2020 to 2022. Alongside my development responsibilities, I review changes from other developers, mentor & onboard new hires and contribute to sprint planning.

- Implemented key features for the infotainment's Android Auto Application Launcher
  - Designed module to processes updates to the application database to reduce the possibility for data corruption and enable recovery of app data
  - Improved performance of icon loading via a cache implementation
  - Integrated the application with the vehicle system service APIs to respond to loss of power and other system related events
  - Development was done with **Java 8** on the **Android P** SDK
- Designed and implemented several automation tools using **Python 3.7**
  - Built a parser for to analyze test results in XML
  - Built tool to store test analysis in a **MySQL** database & publish report to a **HTML** webpage
  - Integrated data pipelines using **JSON** as an intermediary data transfer medium
  - Contributed to the development of an AI Image Processing tool used to pre-processes the results of automated test scripts. Processing was done with google tensorflow using the provided Python API. The tool reduced the occurrence of false positives by 70%.

Dell/EMC

Software Engineer - Networker Server September 2015 - January 2017

Responsible for development of Networker Backup and Recovery Solutions. Involved with feature improvement and maintenance of the service's backend.

- Improved reliability and performance of components within the server module
  - Identified and fixed an undiscovered denial of service vulnerability within the RPC implementation
  - Improved the parallel execution of server tasks for better performance and eliminated resource deadlocks on certain workloads.
  - Resolved several defects in the messaging framework between client programs and the server
  - Developed **multi-platform** (Linux & Windows primarily) solutions in **C/C++**
- Used **Python 3.7** to create test scripts to reproduce defects that involved complex interaction between clients and the server

AMD

Co-op, Apple Team September 2013 - August 2014

As a co-op student, I was responsible for maintaining and extending features for several internal tools used in GPU encoding and decoding processes.

- Extended the amount of debugging information presented to engineers during GPU encoding/decoding video streams
- Assisted in porting a GPU emulator to **Mac-OSX**. I was responsible for building the UI application which configured and controlled the emulator
- Development was done with **C** and **Objective-C** primarily, on Mac-OSX systems

Education

McMaster University - Hamilton, Ontario

Bachelors of Engineering 2010 - 2015

Received my Bachelors of Engineering in Software Engineering with Co-op in the spring of 2015.

- Member of the Software Engineering Club where I was the representative for senior students

Design for Six Sigma - Green Belt

Received my Green belt in DFSS, for my role in creating a tool to automate CAN Bus signal testing. Currently on track to receive my Black Belt in DFSS later this year.

Technical Summary

Primary Skills

Java C Python Bash CVS (Git/SVN/Perforce)

Secondary Skills

SQL XML JSON HTML5/CSS3 Objective-C

Development Platforms

Linux (RedHat, OpenSuse, Ubuntu) Android Unix (Solaris, HP-UX, AIX) Mac OS X