

Mohini Anne Dsouza, MS

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Recently graduated results-driven software engineer with varied international experience contributing to key development projects. I work well on a cross-functional team to improve automation and optimization practices. Eager to contribute engineering skills to an organization for continued growth and professional development.

Areas of Expertise include:

- Software Development Lifecycle
- Continuous Integration/ Continuous Development (CI/CD)
- Object-Oriented Functional Programming
- Automation
- Scripting
- Data Warehousing
- Agile Development
- Testing

Programming Languages: Java, Python 3.6, Bash Shell Scripting, Batch Shell scripting

Software Development Tools: Atlassian JIRA, Git SVN, Git Bash, Apache Maven, Visual Studio Code, Spring Tool Suite PuTTY, PyCharm **CI/CD Tools:** Gitlab, Jenkins

Network Protocols: TCP/IP, UDP, HTTP, DNS **Virtualization Tools:** Docker, VMWare **Operating Systems:** Windows, Linux

Professional Experience

FEDERATED WIRELESS INC. • Arlington, VA • 2/2018 – 11/2018

SOFTWARE ENGINEER (CONTRACT), DEVELOPMENT AND OPERATIONS 2/2018 – 11/2018

On contract with a small team of 3-4 employees; responsible for developing and testing TA2 Spectrum Collaboration Challenge – a commercial Spectrum Access System - in Linux-based secure test environment; authoring and packaging several Java applications to build toolchain framework using Apache Maven automation tool; Creating Python scripts for testing and deploying various LTE based RF and traffic scenarios in secure test environment; Modifying existing Java applications and Python scripts to resolve debugging issues; Creating and updating issues on JIRA's Agile Board for bug tracking and project management; Using CI/CD build tools on Gitlab to implement scenario designs; Performing source code management using version control on Gitlab.

Key Accomplishments:

- Resolved a problem with project build breaking when run against new input files by creating and adding Java applications to existing package to handle the new design requirements.
- Streamlined verification process by developing an automated deployment test verification tool using Bash shell script.
- Made the build process faster and neater by creating the build process in a virtualized container like Docker.
- Created and added Python scripts to existing package of Python scripts in verification stage to display design throughput information in HTML report documents: These throughput values are displayed against corresponding output throughput and values that fell below design value or exceeded more than 10% of design were highlighted; Created a script that displayed the traffic throughput average of 50-node data point.

T-MOBILE US INC. • Washington, D.C. • 6/2017 – 12/2017

ENGINEERING INTERN, ENGINEERING

Gained valuable experience developing scripts and processes to improve services in key markets.

Key Accomplishments:

- Spectrum Monitoring System Using Life Bandscan: created a Bash script to run Perl program to collect signal parameters of TV channels in 600MHz; handled system failure and other errors to ensure continuous transmission of information to central database.
- Determined which cell sites could be deployed immediately around existing incumbent TV towers without causing interference to their transmission.
- Created Tableau visualizations to highlight the cell sites that caused the most impact.

HONG KONG SHANGHAI BANKING CORPORATION LTD. (HSBC) • Pune, India • 8/2015 – 7/2016

SOFTWARE ENGINEER, GLOBAL COMMERCIAL BANKING

Developed data warehouse applications in COBOL to migrate data from older programs. Created a DB2 database to log error information in client programs for Master Data Module. Designed front-end CICS screen for credit card approval processing system.

Key Accomplishments:

- Increased CPU processing efficiency to 70% by optimizing data warehouse applications in COBOL based programming.
- Designed the user interface for a Credit Card Approval Processing System; implementing improvements to make it easier for the user to switch between pages and options.

Education

Master of Science, Telecommunications Engineering, University of Maryland, College Park, MD (2018 • 3.8 GPA)

Coursework: Distributed Systems in Virtual Environment, Network Engineering, Data Structures and Algorithms

Projects: • Created an automated system using Bash shell script to validate and authenticate new username and group-name. Used Jenkins for source code management and continuous integration and development. Deployed the system on a Linux virtual machine using VMWare (4-5/2018)

- Developed an application program to reduce dropped or blocked calls to 12% in CDMA system; improved system using admission control to reduce the number of rejected calls to 4% using Python 3.6 (3-5/2017)
- Data extraction system - constructed a Java application using UDP socket programming to transmit data between server and client (11-12/2016)

Bachelor of Engineering, Electronics & Telecommunications Engineering, University of Mumbai, India (2015)

Coursework: Computer Programming, Microwave Engineering, Computer Networks and Protocols, Signal Processing