Tej A. Patel

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Objective

To utilize excellent computing and troubleshooting skills to solve problems and innovate while learning more.

Education

Georgia Institute of Technology | Atlanta, GA

August 2017 – Present

Bachelor of Science in Computer Engineering, GPA 3.92

Expected Graduation, May 2021

Master of Science in Electrical and Computer Engineering

Start and Complete from August 2021 - May 2022

Skills

Programming: C++ (4 years), C, Python, Bash, MIPS assembly, JavaScript, MATLAB, Java

Platforms: Linux, Mac OS, Windows, AWS DynamoDB, VMware, HP Server ILO, Google Unit Test

Hardware: Arduino, MBED Microcontroller, Soldering, Multimeter, MyDAQ, Oscilloscope, Logic Analyzer

Software: GitLab, VMware ESXi, vRealize Automation, Packer, Selenium, Docker, GitHub, Microsoft Office, BMW Diagnostic

Communication: Technical Reports, Presentations (large and small audiences)

Languages: English (native), Spanish (beginner)

Experience

Cloud Automation Intern

VMware | Atlanta, GA May – July 2020

- Architected and implemented an autonomous VM template lifecycle management system for production use reducing delivery time from weeks to minutes including patching and testing.
- Leveraged Packer, Docker, and vRealize Automation to develop a solution that integrates with vSphere to efficiently transfer large templates across production datacenters utilizing minimal bandwidth.
- Integrated Serverspec unit tests and Active Directory joins to ensure VM templates are valid after latest applied patches before deploying to production datacenters.
- Utilized GitLab for CI/CD testing to quickly prototype a PoC of the proposed solution.
- Presented solution to an IT Review Board for overall review of design and production pilot approval before moving into production use.
- Created a virtual cluster of hypervisors for development to simulate physical hardware requirements.
- Produced architectural documentation including BRD, FRD, Paper Analysis, and Runbook.

CommScope | Suwanee, GA

May – August 2019

Software Engineering Intern

- Automated modem operating system signing and encrypting processes for factory building procedures using Python scripts with the Selenium library along with Bash scripts to save firmware engineers dozens of hours per week.
- Accommodated customer features to support automated Jenkins builds with customized firmware for different modem models using the same base firmware minimizing the overhead to compile files.
- Delivered fan control changes for new modem development to Comcast in an Agile environment within 2 weeks.

Georgia Institute of Technology | Atlanta, GA

August 2019 – Present

Lead Undergraduate Teaching Assistant – Digital Design Laboratory – School of ECE

- Manage a lab of 20+ students and assist students in developing technical understanding as well as communication skills.
- Provide technical and administrative assistance to other TAs as necessary throughout various lab activities.

Georgia Institute of Technology | Atlanta, GA

January 2018 – May 2019

Undergraduate Teaching Assistant – College of Computing

- Taught 30+ first year engineering students programming fundamentals including data structures, control flow, and complexity.
- Created and proofed technical exams with 20 other TAs for over 1000 students per semester over a three week period.

Projects

Web Scraper CI/CD Advanced Programming Techniques

May 2019 - Present

- Created a service to scan for vehicles posted for sale on a daily basis
- Developed using GitLab for continuous integration and continuous development
- Uses Python to scrape for listings and Amazon DynamoDB to store results
- Sends notification of new postings