SWATI SHARMA

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Software Engineer with 3+ years of experience in software development, testing and automation. Experience in Python, Selenium, Test automation and Agile methodology.

WORK EXPERIENCE

Automation Engineer, *Intel via Systemonex Inc., Hillsboro OR* **Jul 2018 – Present**

- Wrote automation test scripts and unit tests for testing Intel Linux network drivers, based on manual procedures as well as feedback from validation testers
- Learned and enhanced Python-based sophisticated in-house framework that is setup for multiple host objects
- Developed Python scripts that parse the XML file containing IP addresses, MAC addresses, concurrent automation host objects and runtime test configuration
- Regularly investigated automation regression and failures and participated in requirements gathering, prioritizing, status reporting and tracking
- Managed codes and test cases in source control and tracked bugs in the internal bug tracking system
- Involved in Agile project management activities including planning, execution, tracking and reporting
- Collaborated with test engineers for automated regression setup and testing, utilizing validation tools
- Utilized various networking and testing tools such as netperf, iperf3, ethtool, ip route, wireshark, tcpdump, etc

Research Assistant, *Smart Grid Research Lab, IIT Chicago* **Apr 2017 – May 2018**

- Developed Python scripts that parse the XML file containing the signals of different power models (exciters, generators, etc.) in the form of equations and automate the conversion of these equations into C code
- Created Python scripts to automate the verification process of correct mapping of buses between PSSE and CAPE systems of ComEd
- Handled projects involving reading in CSV files and text processing using Python and Linux shell
- Based on varying requirements, performed conversions of high-end Bash scripts into Python and vice-versa

Python Developer, *Luminoguru Pvt Ltd, Punjab India* **Jun 2015 – Jul 2016**

- Designed web application using Python on Django Web Framework pattern to make it extensible and flexible
- Wrote various scripts in Python for extracting the data from HTML files
- Developed Python routines to automatically log into the websites and fetch desired data
- Created and maintained various Jenkins jobs to automate the development of web applications
- Wrote MySQL database queries using Python-MySQL connector and MySQL dB package
- Worked with pytest, unittest, and other testing modules for testing the functionality of the applications

TECHNICAL SKILLS

Languages: Python, SQL, HTML, CSS, C, Bash, Assembly (EASy68K) Language
Software Testing: Selenium WebDriver, Behavior Driven Development, Functional testing, Regression testing
Python Tools: Django, NumPy, OpenCV, SciPy, Matplotlib, Pandas, requests, urllib3, SQLite, etc.
DevOps Tools: Jenkins, Git, GitHub, Gerrit, Gitlab, Jira, Docker, AWS
Operating Systems: Unix/Linux, Windows 10/8/7, MacOS

EDUCATION

Masters, Electrical & Computer Engineering | GPA-3.5 — Illinois Institute of Technology — **Aug 2016 – May 2018**
Bachelors, Electronics & Communication Engineering | 72.3% — Kurukshetra University — **Aug 2011 – Jun 2015**

PROJECTS

Face Detection:

- Detects face and facial features of a human from either still or real-time inputted image. Cascade function trained with a set of positive and negative images integrated with OpenCV classifiers were utilized.
- Skills: Pynq, Python, Linux, Jupyter, OpenCV, Ethernet, USB

Alien Invasion:

- Developed a clone of the popular arcade game "Alien Invasion" where the player controls the ship movement and fires down the aliens at the top trying to invade the territory.
- Skills: Python, Pygame, Unittest

Shortest Path Finder:

- Developed a Python game application that depicts the stepwise visualization of A* Path Finding Algorithm to approximate the shortest path between two coordinate points in 2-dimensional space.
- The project allows the user to pick a start and end location in a predefined area, add hindrance between the points, visualize the process of finding the shortest path, and concludes with a result window.
- Skills: Pygame, Tkinter