Jeff Silverman

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**SUMMARY**

*I have years of experience running computers ranging from running 2,000 servers at Amazon to a single scientific application for the United States Forest Service. I have detailed knowledge of how networks work and how they fail. I have extensive experience with python. I have some experience running MySQL. My experience is illustrated in specific accomplishments below.*

**EDUCATION**

**Certificate Cyber Securioty** Coding Dojo *May 2022*

**Certificate Amazon Web Services (AWS)/** University of Washington *June 2014*

**Certificate Python Programming/** University of Washington *June 2011*

**B.S. Physics/** Harvey Mudd College

**GOALS**

I would like to use Python for some sort of operational, networking, or testing task. I've used python to analyze network behavior and test network devices. However, if a Natural Language Processing opportunity or a scientific programming opportunity came my way, I would certainly take it.

**ACCOMPLISHMENTS**

* At Expeditors, I converted 81 servers from control of the IT organization to control of my group, including installation of Ansible, software updates, and security updates.
* At Varsity Tutors, I had 3 5-star ratings and 1 4-star ratings, an average of 4.75 which is almost but not quite in the top 10%.
* While at Microsoft, I automated test procedures for a new controller for Azure servers.
* While at Downtown Emergency Services Center (DESC), I demonstrated how they can use their existing systems to generate business intelligence and manage their operations more effectively. I made some harnesses to reduce the time required for COVID-19 remediation. Showed how to use existing inspection procedures to improve safety at zero cost.
* While at AT&T, worked on a better monitoring system for several dozen nameservers in a software development lab.
* While at Tata Consultancy Services, I was dedicated to the T-mobile account. I did Root Cause Analysis (RCA) on a major outage, including creating a business argument for migrating into the cloud to eliminate constraints that had contributed to the problem. Reduce monitor false alarm rate by 90%
* While at Amazon, wrote software in python to search for misconfigurations in network devices. Also automated patching processes for 2000 hosts, which went from 0 hosts/day to 89 hosts/day.
* While at Juniper, wrote automatic test software to verify that there are no regressions as JunOS software gets updated. I used PyEZ which runs over NETCONF, RFC 6241, paramiko and netmiko.
* While at Maxset LLC, wrote many research softwares to synthetically translate natural language texts in to the skyset format. See https://arxiv.org/pdf/1511.02117.pdf. I wrote a tutorial, some of the heuristics, a logging system using elasticsearch, logstash, and kibana (ELK).
* While at Tommy Bahama, wrote a program in python that visited all known linux and solaris servers and recorded their input and output dependencies. Converted the monitoring system from Big Brother to nagios. Maintained software and configuration on A10 networks load balancers. Participated in on-call for production critical systems. Wrote documentation for systems, including playbooks for outages.
* While at Disney, I wrote software in python to manipulate F5 LTMs through iControl. I used chef and ruby to automate turning patching servers. Gave presentations on wireshark, Elasticsearch, Logstash, and kibana (ELK), and openssl.
* While at UIEvolution, I wrote two documents that described the systems being deployed, one for the clients and one for the servers at AWS.
* While at Sweetlabs, I wrote a python program that translated virtual machines images into OpenStack volumes, configured networking in neutron, and created an instance on nova.
* While at Google/Widevine, I gave a talk on algorithm analysis and Big O notation, with examples written in Python. I also gave a talk on applied cryptography. I worked with Juniper SRX 3600 firewalls, Juniper EX8200 switches, and Juniper MX-80 routers. I transitioned the team from Juniper SA2500 VPN to OpenVPN. I documented processes, procedures, and configurations. Ran backups using both CommVault and Amanda. I managed machines running Windows Server/2008R2, Linux and several BSDs
* While at Google Compute Engine, I verified that the documentation for Compute Engine was both correct and clear, by writing many python programs. I wrote a python program that would spin up 500 instances of compute engine in less than 90 seconds. I assisted Google Compute Engine customers worldwide learning how to use the system at multiple levels.
* While at F5 networks, I won 2nd place in the Contest for Service Improvements for suggesting that each error message be given a unique number. I then built a database keyed by these numbers with detailed explanations of the error and remedial action. I also got 5 nominations from coworkers for innovation, excellence, and commitment. Consistently achieved performance and customer satisfaction goals. Wrote a document explaining how key features of the support lab worked and how to use them. Wrote several solutions for publication to our customers, one of which was the most read in F5's DevCentral website in one quarter

**PROFESSIONAL EXPERIENCE**

**Linux System Engineer *February 2022-March 2023***

Expeditors International

Run a fleet of 81 servers using ansible, bash scripts. Update software, security scans, documentation, testing.

**TUTOR *Oct 2020– February 2022***

Varsity Tutors

Tutor mathematics, physics, computer science for students from 10 years old to adult learners.

**ENUMERATOR *Jun 2020-Oct 2020***

United States Census Bureau

Collected information from people residing in the United States.

**TEST AUTOMATION *Apr 2020-Sepr 2020***

Microsoft Azure

Write test automation software for a new internal controller

**RESIDENT COUNSELOR – ON CALL *Jan 2020-May 2020***

Downtown Emergency Services Center (DESC)

Care for homeless people: counseling, managing medications (including controlled substances), enforcing security, COVID-19 prevention procedures, minor repairs to electronics and facilities, training employees in LibreOffice and Windows/10.

**PYTHON DEVELOPER *Jun 2019-Aug 2019***

American Telephone and Telegraph (AT&T)

Write software in python to monitor network devices and name servers. Review documentation prior to publication.

**ASSISTANT CONSULTANT *Nov 2018-Feb 2019***

Tata Consultancy Services

Write tools to automate alerting on various conditions. Investigate and remediate false alarms. Write documentation.

**SYSTEM ENGINEER *Dec 2017-Aug 2018***

Amazon Web Services (AWS)

Write tools to analyze the configurations of network devices in Amazon’s AWS network. Automate patching procedures.

**RESIDENT ENGINEER *Dec 2016-Aug 2017***

Juniper Networks

Write automated test software for new software in Juniper switches and routers

**CHIEF TECHNICAL OFFICER (CTO) *Jun 2016-Mar 2017***

Maxset LLC.

Use Natural Language Processing (NLP) software such as nltk, textblob, and spaCy to develop a new knowledge representation system, called skyset, for simplifying process documentation.

**SOFTWARE DEVELOPMENT ENGINEER IN TEST (SDET) *Aug 2016-Sep 2016***

IMPINJ

Develop test cases for the IPv6 implementation of the Impinj radio frequency identity (RFID) readers, using behave, python, wireshark, tcpdump, and pycharm.

**LINUX & UNIX SYSTEM ENGINEER *Jan 2016-Jun 2016***

Tommy Bahama

Managed an assortment of servers running RHEL 6.x and Solaris servers. Automated patching processes. Built tools using python. Audit security. Transition server monitoring from Big Brother to nagios.

**DEVOPS ENGINEER *Mar 2015-Nov 2015***

The Walt Disney Company

Managed an Elasticsearch Logstash and Kibana (ELK) cluster. Wrote software in python and ruby and chef to automate various system administrator tasks. Automated the monthly patching process using chef recipes. Participated in on-call rotation.

**SYSTEM ADMINISTRATOR *Dec 2014-Feb 2015***

UIEVolution

Reverse engineered and documented production systems. Managed development and test MySQL databases. Created a commercial.

**SYSTEMS ENGINEER *Jun 2014-Oct 2014***

Sweetlabs

Wrote scripts in Python. Monitored the monitors for abnormal conditions that the automated monitors didn't detect. Built and managed an OpenStack cluster. Wrote munin plugins.

**LINUX SYSTEM ADMINISTRATOR – NONSTANDARD INFRASTRUCTURE *Jun 2013-Jun 2014***

Google Widevine Youtube Content Protection / Kirkland, Washington

Run a small linux software development lab, including hardware maintenance, operation of the network hardware (all Juniper, except for an F5 Global Traffic Manager), run the backups, NAS, facilities, physical security. Remediated the heartbleed vulnerability. Document procedures, such as backup recovery, network software updates, disaster recovery. Write Python and Bash scripts for linux servers

**DEVELOPER SUPPORT SPECIALIST *Apr 2012-Mar 2013***

Google Compute Engine/ Seattle, Washington

Customer support of Google's Compute Engine cloud computing IaaS solution. Write and test software in python, bash, and SQL. Test in linux and MS-Windows/7.

**INSTRUCTOR *Sep 2012-May 2013***

University of Washington/ Seattle, Washington

Taught python to adult learners. Fall quarter was basic syntax and usage of the language. Spring quarter was various advanced topics:subprocesses, relational databases (MySQL and sqlite3), non-relational databases (redis), benchmarking, the pdb debugger.

**TEST ENGINEER *Mar 2011-Mar 2012***

F5 Networks Product Development/ Seattle, Washington

Engineer performance testing on F5 products such as Local Traffic Manager (LTM)

**NETWORK SUPPORT ENGINEER *Nov 2006-Mar 2011***

F5 Networks customer support/ Seattle, Washington

Support F5 customers using telephone and E-mail. I specialized in the BigIP Local Traffic Manager (LTM), Enterprise Manager (EM) devices and the Web Accelerator Module (WAM) and Mail Security Module (MSM). Use a laboratory environment to simulate customer problems and test solutions. The lab environment contains many services built on linux servers

For a list of presentations I have given and documentation I am writing, please refer to [my portfolio](https://jeffsilverm.ddns.net/portfolio.html) page.

See my [github repository](https://github.com/jeffsilverm).

**PUBLICATIONS**

D. Beeman, J. Silverman, R. Lynds and M.R. Anderson, “Modeling studies of amorphous carbon,” Phys. Rev. B30, 870 (1984).

[Testing HTTPS client using openssl to simulate a server](https://linuxconfig.org/testing-https-client-using-openssl-to-simulate-a-server/)

See [my portfolio](https://jeffsilverman.ddns.net/portfolio.html) page for additional publications and lectures.

/home/jeffs/job\_search/2023/JEFF\_SILVERMAN\_resume\_Mar\_2023.docx