

PROFESSIONAL SUMMARY:

- Experienced **Software Engineer** with **Master** of Electrical Engineering and a demonstrated history of working in IT industry.
- Skilled in **Python**, Django, TCP/IP stack, **DevOps**, Automation and **Cloud Operations**.
- Knowledge and experience of complex software design for distributed systems in embedded networking projects.
- Experienced on **Cisco Prime** to **monitor** the network devices, configuration management, scripting changes, and **threat analysis**.
- Experienced in Agile framework and **Scrum** Methodology.

SKILLS:

Programming Languages: Python (*Advanced*), C, C++, PHP, Unix Shell/Bash Scripting, Go

Protocols: TCP/IP suite, UDP, RIP, OSPF, EIGRP, BGP, NAT, MPLS, VLAN, IPv4/v6, DHCP, DNS, STP, VTP, SNMP, ARP, HSRP, HTTP(S), SSL, AAA

Networking Tools: Wireshark, Putty, NS2, GNS3, Scapy, VMware ESXi, V-center server, HyperTerminal, Cisco Packet Tracer

Data Science Tools: Pandas, Numpy, Tableau, Scikit-Learn (sklearn), Scipy, Tensorflow, Seaborn, Matplotlib, CUDA

Database: MySQL, MongoDB, DynamoDB, Cassandra | **Big Data Ecosystem:** Kafka, Spark | **Frameworks:** Django, Flask, Tkinter(GUI)

Machine Learning: SVM, Naïve Bayes, Random Forest, Decision Tree, Linear regression, Logistic regression, Multi-Layer Perceptron, KNN, KMeans Clustering, Artificial Neural Networks, PCA

Expertise: Network Programming, Firewalls, Network Security, Socket-Programming, Deep Learning, **Data Structures and algorithms**, OOPS, Client & Server Architecture, **SDN & NFV**, Deep Learning, Microservices, Kernel Architecture, AES & DES Encryption, Multi-threading.

Certification: Cisco Certified Network Associate (CCNA Routing and Switching CSCO13315295), AWS Certified Developer – Associate

Cloud Platforms: AWS-EC2, S3, EBS, VPC, RDS, GCP, **Kubernetes** | **CI/CD:** Puppet, Ansible, Chef, Jenkins, Splunk, New Relic, Nagios

PROFESSIONAL EXPERIENCE:**SOFTWARE DEVELOPER (intern), OCTONIUS Inc.****May 2017 – October 2017**

- Responsible for Creating **voice integration** and voice search functionality. Experienced in building **CI/CD pipelines**
- Experienced in integrating file transfer-based **Search Engine** along with Voice based search using Web-kit-speech Recognition API.
- Worked on **Machine Learning algorithm** to predict the user-based **recommendation** based on the pattern analysis.
- Responsible for designing a test framework to validate the code changes before **deploying** on production servers.
- Worked on **monitoring** the software patch, testing, bug analyzing (**JIRA**) and providing a fix **collaborating** with other developers.
- Write REST APIs, helper functions and test automation scripts for the internal **test automation** framework using Jenkins and Python
- Engage with customers and **support** to solve production issues.
- Tech stack:** **Django**, Python, Node.JS, MongoDB, PostgreSQL, CloudFormation, Rest API, Jenkins, Bitbucket, AWS, **Docker**.

IT Specialist (Student Assistant), San Jose State University.**February 2017 – May 2018**

- Maintained** Cisco routers and switches, configured L2, L3 protocols on routers.
- Troubleshooted the routers (routing protocols) and switches (Vlans, STP), helped Students to **resolve** technical issues.
- Experienced **troubleshooting** network problems for LAN and Wireless communications and security issues.

EDUCATION:**Master of Science (Electrical Engineering with Computer Networks and Deep Learning)****May 2018**

San Jose State University, San Jose, CA, U.S.A

Bachelor of Technology (Electronics and Computer Engineering)**May 2016**

VR Siddhartha Engineering College.

ACADEMIC EXPERIENCE:**Slack Bot for coursework info - Slack API, Python, DynamoDB, Quepy, AWS Lambda, NLTK, Flask**

- Built a question-answer chat bot against data stored in AWS **DynamoDB** and a Slack API.
- Defined **regular expressions** to match income natural language questions (**Lemmas**) using **NLTK** tagger.
- Configures AWS API gateways and deployed the **business logic** on **AWS Lambda** using Python-Lambda libraries.

Predict Survival on the Titanic – Machine Learning, Python, Jupyter Notebook, Sklearn, Numpy, Pandas, Seaborn

- Feature Engineering and data cleaning to handle non-numeric, missing and categorical values.
- Used **Support Vector Classifier** to train model and predict survival with an accuracy of 76%.

URL Shortening Service - Python, Django, SQLite, Heroku, Phishtank API, Docker, HTML, CSS

- Used Django to make **web service calls**. Dockerize the application to **deploy** on Heroku.
- Implemented **Memcachier/Memcached** to hold previous calls in memory thus increasing the performance when dealing with domain/URLs already cached.
- Implemented **Indexing** for Speedy retrieval, and duplicate checks to make sure URL is stored only one time.

Develop a Load Balancing Algorithm for SDN using FloodLight controller - Python, SDN, FloodLight Controller, Mininet, Floodlight

- Was involved in **debugging** and developing the load balancing code.
- Developed and Implemented Weighted **Round Robin** load balancing, **Dijkstra algorithm** and was developed using Python.
- The algorithm increased the bandwidth and the efficiency of the network by 300%.

QA Testing on Groupon Website and mobile Application – Python, Selenium Web driver, Appium, TestRail, JIRA

- End-to-end automation testing, and **black box** testing has been done on the website.
- Built a test environment using selenium to reduce manual testing effort for Groupon Web Application

Stateful Firewall Software - Python, Wireshark, Virtual Environment, IPtables, Scapy, Shell scripting

- Basic Defence mechanism to drop malicious packets using the log file. Aim to deliver packet filtering, IP filtering, blocking Dos attacks and malicious website requests with minimum response time.