YASH SOLANKI

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EDUCATION

University of Southern California, Viterbi School of Engineering — Los Angeles, USA
Master of Science in Computer Science (Computer Networks) **(GPA 3.6/4)** — Aug 2021-May 2023
Coursework: Advanced Computer Networks, Operating Systems, Web Technologies, Analysis of Algorithms, Secure Systems

Pandit Deendayal Petroleum University, School of Technology — Gandhinagar, India
Bachelor of Technology in Computer Engineering **(CGPA 9.48/10)** — Aug 2016-Jun 2020

TECHNICAL SKILLS

Frameworks	Angular, React, Express JS, Bootstrap, Node JS, Android SDK, Flask, REST API, Ethereum
Technologies	Amazon Web Services, Google Cloud Platform, Git, Docker, Linux, Blockchain, Kibana
Languages	C, C++, x86 Assembly, Python, Java, JavaScript, TypeScript, HTML5, Solidity, Logstash
Databases	Mongo DB, Dynamo DB, Redis, MySQL, Elasticsearch, Memcached
Other Skills	TCP/IP, Network communication, OS fundamentals, ML, QA, Testing, Debugging

EXPERIENCE

Software Engineer — Los Angeles, USA
Office of Chief Information Security Officer, ITS, USC — Nov 2021-Present

- Designed an architecture that aggregates 6 data sources into a single data lake on AWS for risk assessment and visualization
- Conducted series of 6-month phishing campaigns for 25 USC departments resulting to 55% decrease in phishing failure rate
- Presented 5 Year Risk assessment and mitigation strategy to chief Information security officer and got it approved

Software Developer — Ahmedabad, India
SharkStriker Inc. — May 2020-May 2021

- Built security agent installers responsible for automating security log pipelines on Windows, Linux and Macos systems
- Integrated logs data from 12 Endpoint Management Platforms, Firewalls & SIEM systems to a standardized Elasticsearch schema
- Developed 7 log parsers with Python, C++ and Logstash for the organization of the firewall and endpoint security logs on Kibana
- Worked extensively in Linux distributions for automation using shell scripts, service creation, network & firewall configuration

PROJECTS & PUBLICATIONS

Weenix Operating System | *C, x86 Assembly, Linux*

- Developed a UNIX based monolithic single processor operating system. Implemented kernel to support user space programs in C
- Implemented several modern operating system features like processes, threads, virtual file-system and virtual memory, etc.
- Created shadow objects to allow copy-on-write functionality in fork() system calls making the system fast and efficient
- Wrote all OS system calls including but not limited to fork(), mmap(), brk(), read(), write(), open(), close() etc.

Domain Name System & DDos Attack & Defense Simulation | C++, Python, Linux, Operating Systems

- Configured a Domain Name System using quagga which performs name resolution in a distributed 8 node environment
- Used C++ to develop scripts to perform various attacks on the configured DNS system using Linux packages like DNSperf & Iperf
- Implemented various DDos defences like automated firewall filtering, Dynamic ECMP load balancing &Traffic Scrubbing and more

Stockker - Web and Android Application | *Angular, Express JS, Flask, Android Studio*

- Developed real time stock trading platform supporting portfolio, watchlist, stock trading, trade data visualization, etc. features
- Used Finnub stock service to create REST API with Express and used Local Storage to maintain users' watchlist and portfolio data
- Deployed this Full Stack Responsive Node-Angular web application on Google Cloud Platform
- Implemented a corresponding Android Application for this platform with similar state management and gesture based UI features

Tamperproof Voting System | *React JS, Python, IOT*

- Designed a tamper-proof voting ecosystem using blockchain and IOT. Implemented distributed cloud-based model for privacy
- Published a product patent under Indian Patent Office in the Official Gazette of India for the Blockchain Based Voting Ecosystem

HONORS & AWARDS

- Selected among top 5 finalists out of 100+ teams nationally in Smart India Hackathon 2019 for the "Self-Learning Chatbot"
- Received project funding grant worth ₹ 1.5 lakh ($ 2000) from our university for IOT-ML based project - "Smart Parking System"
- Published 5 Research Papers and 1 Product Patent in domains like Blockchain, Machine Leaning, Computer Vision, IOT, etc.
- Received "Best Paper Award" at an international conference for the project "Blockchain-based Drug Regulation System"

LEADERSHIP

- Led a team of 52 members as the President of Association of Indian Students. Organized academic and cultural events of India
- Elected as the President of Computer Society of India. Managed a team of 32 students and coordinated execution of workshops, tech-talks, and hackathons to enrich computer science culture at the university