# **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

Relevant Coursework: CSCI551 Computer Networks, CSCI402 Operating Systems, CSCI571 Web Technologies,

CSCI570 Analysis of Algorithms, CSCI530 Secure Systems

Pandit Deendayal Petroleum University, School of Technology Bachelor of Technology in Computer Engineering (CGPA 9.48/10)

Gandhinagar, India Aug 2016-Jun 2020

### **TECHNICAL SKILLS**

Frameworks Angular, React, Express JS, Bootstrap, Node JS, Android SDK, Flask, REST API, Ethereum, Keras, Scikit-learn

Technologies Amazon Web Services, Google Cloud Platform, Git, Docker, Linux, Blockchain, Kibana, OpenCV

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 Developer**

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 Nov 2020-May 2021

SharkStriker Inc.

• Built security agent installers responsible for automating security log pipelines on Windows, Debian, Redhat and Macos systems

- Integrated logs data from 12 Endpoint Management Platforms, Firewalls & SIEM systems to a standardized Elastic schema
- Developed 7 log parsers with Python and Logstash for organization of the firewall and endpoint security logs on Kibana

# **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.

### 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

# Blockchain Based Drug Regulation System | React JS, Ethereum, Solidity, Web3

- Designed a de-centralized application (DApp) for drug supply chain to regulate unauthorized access and counterfeiting of drugs
- Implemented Smart Contracts with Solidity on Ethereum blockchain supported by responsive React frontend web application
- Research Paper: Security, Privacy and Data Analytics, DOI: 10.1007/978-981-16-9089-1\_23 [Link]

### **Tamperproof Voting System** | Vue 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