Savio DCosta

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EDUCATION

Santa Clara University — **Santa Clara, CA, USA**
Master of Science in Computer Science — 2021/09 - 2023/06

University of Mumbai — **Mumbai, Maharashtra, India**
Bachelor of Engineering in Computer Science — 2016/08 - 2020/08

SKILLS

Programming: Java/J2EE, Python, C/C++, HTML, CSS, Javascript, jQuery, Typescript, Dart, SQL, NoSQL
Web Frameworks: Flutter, Express, Node.js, React.js, React Native, Spring Boot, JSP
Databases: Oracle Databases, Firebase (Authentication, Firestore, Storage), MySQL, MongoDB, SQLite
Cloud Platforms: AWS (EC2, S3, Route 53, EKS), Google Cloud Platform (GCP), Docker, Kubernetes
Other Tools: Git, Github, Bitbucket, Confluence, JIRA, Wireshark, Sonarqube, Postman, Adobe XD, Figma

EXPERIENCE

SCU Frugal Innovation Hub — **Santa Clara, CA, USA**
Software Engineer — 2023/01 - Present

- Spearheaded the development of a cross-platform, accessibility-focused resource application for an NGO aiding individuals with disabilities, utilizing Flutter and Firebase (Firestore, Storage, Authentication).
- Engineered CRUD API endpoints, integrated with Firebase Database and Google Cloud Functions, to ensure robust data validation and secure authentication mechanisms.
- Allowed users to filter content based on resource categories and specific disability types. Also implemented functionality for employers to add and edit resource information for users to view.
- Incorporated Google Maps API, enabling users to visualize and locate resources geographically.

Lightning Motorcycles — **Hollister, CA, USA**
Software Engineer — 2022/06 - 2023/01

- Led the development of a cross-platform mobile app using Flutter, allowing seamless communication between motorcycles and users on iOS, Android, and web platforms.
- Designed and implemented user-friendly portals for both administrators and users, utilizing Firebase Authentication, Firestore, and Google Cloud Functions for secure and efficient data management.
- Created and maintained various CRUD API endpoints to trigger specific Google Cloud Functions for data validation and authentication.

Honeybee Tech Solutions — **Mumbai, Maharashtra, India**
Software Engineer — 2020/08 - 2021/08

- Developed a web-based Grievance Handling and HR Management system using JSP, Bootstrap for the front end, and OracleDB on the backend.
- Utilized Java, jQuery, and AJAX to support dynamic web flows and improve user experience.
- Optimized performance by creating indexes on API queries, resulting in a 60% reduction in load time.
- Integrated SonarQube, to address code smells, resulting in better software production discipline and quality.

Revitech Infosolutions — **Mumbai, Maharashtra, India**
Data Analyst Intern — 2019/03 - 2019/07

- Developed a tool that helped with data cleaning and preprocessing of files greater than 15GB.
- Worked on running various machine learning algorithms to provide valuable insights and trends.

PROJECTS

Workout Tracker using MERN Stack — **2023/11 - 2023/12**

- Developed a comprehensive Workout Tracker web application using the MERN stack, focusing on user-centric features such as custom workout plans, exercise categorization, and progress tracking.
- Implemented secure user authentication using JWT as well as password hashing, and designed a flexible MongoDB schema to efficiently manage diverse exercise data.
- Developed and implemented database architecture, and secure APIs to responsive front-end design with state management across components, ensuring optimal performance and scalability.

Responsive Portfolio App using ReactJS **2023/10 - 2023/11**

- Developed an advanced portfolio web application utilizing ReactJS, showcasing a responsive and interactive user interface.
- Created a custom API to store resume data which would be used to fetch data from the API to the app dynamically.
- Worked with Material UI, styled-components, state, forms, and EmailJS for recruiters and/or collaborators to contact me via email.

Twitter-Like Distributed Microblogging Platform **2022/09 - 2022/12**

- Engineered a Twitter-like distributed microblogging platform using Python, showcasing proficiency in real-time social media interactions and scalable data management.
- The platform featured socket programming for effective server-client communication and an SQLite database for data persistence. Key modules in the system handled users, tweets, followers, groups, and updates.
- Emphasized scalability, concurrency, and fault tolerance, utilizing multithreading for enhanced process performance.

Smart Cradle System using ESP32 and Firebase Realtime Database **2021/12 - 2022/02**

- Led the design and development of a smart baby cradle system, utilizing the ESP32 microcontroller and various sensors to monitor the baby and the environment inside the cradle.
- Constructed a user-friendly web interface using HTML5, CSS3, and jQuery, providing real-time monitoring and control of the cradle through Firebase Database web API.
- Deployed the web app on an AWS EC2 instance, utilizing an Apache server for user login and access to the baby's status and cradle control features.

Business Review System using Spring Boot and OracleDB **2021/09 - 2021/11**

- Led the design and implementation of a Business Review System, a user-friendly platform that allows users to discover, rate, review businesses, and connect with companies of all sizes.
- Built a web-based user interface using Javascript, jQuery, and AJAX, providing a seamless user experience.
- Established and exposed various CRUD API endpoints to perform tasks such as data validation, extraction, and retrieval for efficient data processing and querying.

Network Intrusion Detection and Prevention System using ML **2019/05 - 2020/05**

- Built an Anomaly Detection (AD) System using decision trees and random forest algorithms to detect anomalous behavior in a network connection. The algorithms were trained using a cyber defense dataset of approximately 1 million network packets under controlled cyber attacks.
- Attributes of the network connection such as packet size, the number of packets, connection type, packet type, and so on were extracted using Wireshark and fed into the AD system model for processing.
- Successfully detected attacks such as Botnet, Heartbleed, DoS/DDoS, and Infiltration attacks.
- Malicious connections would be dropped, and the connection would be blocked.

Placement Prediction System using ML **2028/05 - 2018/07**

- Gathered five years' worth of anonymous data of students such as attendance, marks, semester-wise GPA, and CGPA from my institute, and used the K-Means classification algorithm to analyze the data.
- The model acquired more than 80% accuracy and could determine the student's placement and wage tier depending on the student's academic results.

CERTIFICATIONS

- **Learning Docker (2018)** by LinkedIn | Apr 2023 | Credential ID: Acee137PsuEq2tyDIR6lOCEeJ4I8