

# SAWAN CHAKRABORTY

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## EDUCATION

### Master's in Computer Science & Engineering (MS CS)

April 2023 - March 2025

Santa Clara University — GPA: 3.9/4.0

Santa Clara, California

Relevant Coursework: Distributed Systems, Object Oriented Design, Programming Algorithms, Machine Learning

### Bachelor's in Computer Science & Engineering (BS CS)

August 2017 - June 2021

Visvesvaraya Technological University — GPA: 4.0/4.0

Bangalore, India

Relevant Coursework: Data Structures, Computer Architecture, Software Engineering, Computer Networking

## TECHNICAL SKILLS

Languages	Java, Python, JavaScript, C++, Shell Scripting, Android
Web Technologies	HTML5, CSS3, Bootstrap, React, JSON, REST APIs, SOAP APIs, NodeJS, Flask, Streamlit
Databases	MySQL, SQLite, MongoDB, Redis, Hadoop, Firebase, Spark
Tools & Platforms	Git, Maven, Jenkins, JIRA, CI/CD, Spring, Splunk, Docker, Kubernetes, Kafka, Linux, JUnit, Selenium

## EXPERIENCE

### Frugal Innovation Hub

March 2025 - Present

Software Engineer | Node.js, JavaScript, TypeScript, Git, Kotlin, Docker, Android

Santa Clara, CA

- Developed 'Equation2Success' anti-bullying app using Android, boosting user engagement by 30% with a user-friendly interface and ticketing system. Implemented SSO integration via OAuth 2.0, increasing app adoption by 25%.

### Caltrain

June 2024 - January 2025

Software Engineering Intern | Python, Tableau, Power BI, Wireshark, Git, Nmap, Agile

San Carlos, CA

- Led the enhancement of Positive Train Control (PTC) technology, improving system efficiency by 25% and reliability by 30%, while contributing to Caltrain ITCM High-Level Project Design within legal requirements.
- Worked with the cybersecurity team, using Wireshark, Nmap, and Python to analyze TCP dump data, automating detection of affected ports and protocols, reducing analysis time by 40% for over 50 stakeholders.

### Accenture

July 2021 - February 2023

Software Development Engineer | Java, JDBC, REST API, Spring, MySQL, Maven, Git

Bangalore, India

- Developed and deployed RESTful APIs using Java, automating 70% of tasks and enhancing Dyson Europe's UX, improving performance by 50%. Conducted automated tests and QA checks, increasing quality by 25% and reducing issues by 40%.
- Integrated data quality checks against SQL Injection and cross-scripting, managing 200+ data sources, enhancing data integrity by 90%. Overall efforts improved efficiency and user ratings for 400,000 users, fostering business growth.

### Kigyan Techno Solutions

March 2021 - May 2021

Software Engineering Intern | Android, Firebase, REST API, SQLite, Splunk

Bangalore, India

- Launched "Retail Promotion Planning" module with video streaming on Android, increasing user engagement by 50% and attracting 10000 new users in 3 months. Optimized code by analyzing app logs which reduced crashes by 40%.

## ACADEMIC PROJECTS

### Digital Wallet | Java, REST API, MongoDB, AWS, Maven, JSON, Postman

- Engineered a Digital Wallet platform with Java backend and MongoDB for secure cluster storage across cloud data centers. Designed REST APIs for CRUD operations, tested APIs with Postman, achieving 40% reduction in response time.

### COVID-19 Live Tracker Dashboard | Java, REST API, HTML5, CSS, JavaScript, Bootstrap, AWS

- Created real-time COVID-19 Live Tracker Dashboard, utilizing Java, REST API, HTML5, CSS and Bootstrap, attracting 100+ monthly users. Deployed the full-stack app on AWS to handle traffic spikes during peak pandemic periods.

### ParkShare – Optimize & Earn from Your Parking Spot | Java, Android, REST API, Firebase, SQLite

- Built an Android-based Uber for parking platform enabling users to find nearby slots and providers to rent unused spaces, reducing search time by 50% for 70+ users. Integrated Firebase for backend APIs.

### News Notification System | Python, Sockets, Multithreading, Leader Election, Distributed Systems

- Developed a distributed pub-sub system using Python sockets and multithreading to deliver real-time, personalized news alerts with message ordering and priority. Added leader election for fault-tolerant coordination across servers.

## ACHIEVEMENTS & AWARDS

- Conceptualized and published 3 Android apps on the Google Play Store.
- Winner of Karnataka State Council(IISc) sponsorship for "COVID-19 Face Mask Detector" project.