

# Manasa Pannala

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## EDUCATION

**San Jose State University, San Jose, CA**

**August 2022 – May 2024**

**Master of Science in Software Engineering**

CGPA – 3.6/4.0

**Coursework:** *Software Systems, Deep Learning, Cloud Computing, Enterprise Distributed Systems, Enterprise Software Development*

**Bhoj Reddy Engineering College for Women, Hyderabad, Telangana**

**August 2017 – July 2021**

**Bachelor of Technology in Computer Science and Engineering**

CGPA – 3.5/4.0

**Coursework:** *Data Structures and Algorithms, OS, Web Technologies, Computer Networks, C, C++, Java, Python, Database Systems*

## TECHNICAL SKILLS

**Programming Languages:** C, C++, Java, Python

**Databases and Data Modeling:** MySQL, SQL Server, MongoDB, Redis, PostgreSQL, ETL

**Web Technologies:** HTML5, CSS3, SaaS, JavaScript, PHP, Bootstrap, Rest API, GraphQL

**Machine Learning & AI:** Large Language Modeling, Open AI, LangChain, Casual Analysis, Power BI, Apache Kafka, Spark

**Frameworks:** Node.js, TypeScript, React.js, Redux, Express.js, Passport.js, Next.js, Streamlit

**Deployment:** AWS Cloud, GCP, Docker, Kubernetes, Jenkins

**Tools:** Grunt, Webpack, Git, Eclipse, Visual Studio Code, JIRA, Postman, Sonar, Azure

## PROFESSIONAL EXPERIENCE

**Research Assistant, San Jose State University, San Jose, California, United States**

**August 2023 - Present**

- Spearheaded the analysis and utilization of the N-CMAPSS dataset, revolutionizing predictive maintenance and fault diagnostic methodologies in commercial aviation.

**Data Science Intern, BPMLinks, Florida, United States**

**June 2023 – August 2023**

- Associated cross functionally with 5 engineers to use OpenAI and LangChain technologies to implement a chatbot serving as a product recommendation engine for a cruise company achieving 95% accuracy in targeted customer segmentation.
- Produced an enterprise knowledge management system containing HR documents and other company-related materials. The system is innovated to answer employees' queries and has been seamlessly integrated into the company's internal portal with 98% employees using this instead of traditional approach.
- Orchestrated the successful implementation of a chatbot platform, enabling users to effortlessly upload files and gain valuable insights from dynamic graphs; enhanced the efficiency and accuracy of data analysis processes.

**Software Engineer, Societe Generale Global Solution Center, Bengaluru, Karnataka, India**

**July 2021 - July 2022**

- Collaborated with a team of **6-members** to implement new features for the application, such as **In-app updates**, picture in-picture improvements on the Android platform, which enhanced the user experience by **26% increase** in efficiency.
- Integrated mobile application with backend web services which provide login/logout authentication services, account data, transaction data, internal and external transfers increasing **31%** customer retention.
- Successfully refactored codebase to optimize application performance by implementing caching strategies, reducing the need for frequent calls to access configuration values; resulting in a 60% decrease in response time and improved scalability.
- Performed regular code reviews to avoid critical issues and design loopholes reducing discrepancies by **20%**.

**Intern, Cognizant Technology Solutions, Hyderabad, Telangana, India**

**February 2021 - July 2021**

- Developed **authentication system** with **Spring Boot**, **Google reCAPTCHA** and enabled seamless sign in for **80K+** customers.
- Directed closely with UI/UX designers to create wireframes and prototypes for responsive web pages, resulting in a 32% improvement in user navigation and a 27% increase in conversion rates.
- Streamlined project workflows by introducing automation tools, saving an average of 15 hours per week and boosting team efficiency.

## PROJECT EXPERIENCE

### Stack Overflow Prototype

- Designed an interactive chat system like stack overflow, initiated modules like posts and bookmarks.
- Deployed 3-tier application with message queues as middleware & scaled to handle a load of **10K** questions.
- Enforced Kafka in 3 servers for request-response cycle and increased by **40%** when tested with **10K** concurrent users.
- Expedited Redis for the faster response time (**15-30%**) on the pages and React.js (front end), Node.js (backend), and Redux to manage the workflow of front-end data, database in AWS RDS, and AWS EC2 deployment.

### Stock Market Charting

- Deployed a scalable Spring Boot website with Zuul API Gateway and Eureka Service, cutting downtime by 50%.
- Adopted Agile methods, slashing AngularJS app time-to-market by 19%.

### Security Robot

- Launched an AWS Robomaker application using Docker on AWS ECR, slashing deployment time by 62% for improved productivity.
- Designed AWS infrastructure with load balancers for optimal throughput management.

## CERTIFICATIONS

- Data Structures and Algorithms using JAVA, Database and Management System – NPTEL.