

Tejas Vaity

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Software Developer with 4 years of experience in Java (backend) and Angular (frontend), building scalable web applications with a focus on robust, intuitive and high-performance solutions.

Technical Skills

Programming Languages: Java, Python, C, JavaScript, TypeScript, HTML, CSS, Shell Scripting, Bash

Frameworks: Angular, React, Spring Boot, Spring Security, Spring JPA, Spring MVC, Spring Cloud, Next.js, Node.js

Databases: SQL Server, Oracle, MySQL, Postgres, Redis, MongoDB

Tools: Apache Kafka, Tomcat, Jenkins, Jupyter Notebook | **Containerization:** Docker

Operating System: Linux/Unix, Windows | **Version Control:** SVN, Git | **Cloud:** AWS

Experience

Research Assistant, University of Michigan - Michigan, USA

May 2025 to Present

- Assisted in software research and quality assurance for MLOps projects including a GitHub repository analysis tool with advanced search, commit filtering and reporting.
- CI/CD integration(GitHub Actions, Jenkins) to automate test case creation, detect inefficiencies and reliability.
- Optimized the CPS system using Docker by introducing new techniques and rules to enhance performance and maintainability.

Full Stack Developer, NSEIT – Mumbai, India

Feb 2022 to Jul 2024

- Architected and developed a high-performance real-time trading platform website using Java Spring Boot and Angular.
- Optimized real-time processing and system integration using Microservices architecture, OOP principles, Design Patterns, RESTful APIs and Socket Programming, improving scalability and fault tolerance.
- Designed and implemented a scalable, responsive web frontend with Node.js, TypeScript, and Angular, ensuring seamless interaction with backend microservices.
- Improved data retrieval speed by 25% through Redis caching, query optimization and asynchronous data pipelines integrated with Kafka consumers.
- Led and mentored a 6-member Agile team, managing full SDLC from sprint planning and code reviews to deployment.
- Refined system performance by 20% through thread optimization, non-blocking I/O and efficient resource utilization.
- Deployed distributed services on Linux servers using CI/CD pipelines in Jenkins for automated builds, testing and rollout.

Software Frontend Developer, Faclon Labs – Mumbai, India

Oct 2021 to Feb 2022

- Resolved 95% of system issues within 24 hours, boosting system reliability and client satisfaction while refining web services performance.
- Upgraded the UI with Angular Material and enhanced tables, graphs and downloadable reports through advanced caching.
- Boosted code efficiency by 20% using design patterns and modern development tools.

Project Engineer, Wipro Limited – Mumbai, India

Mar 2021 to Sep 2021

- Created test cases and documented defects during software development to ensure quality assurance.
- Provided team support alongside testing to maximize software performance.

Projects

AI Medical Research Assistant (RAG) – Llama 3, ChromaDB, Python

- Designed a specialized research assistant to answer complex questions from a large corpus of 1,000+ medical journals.
- Built an end-to-end Retrieval-Augmented Generation (RAG) pipeline to ingest, chunk, and embed research papers into a ChromaDB vector store.
- Utilized Llama 3 and a Streamlit front-end to generate accurate, context-aware answers based only on the retrieved medical data, with citations to the source papers.

Retinal Disease Classification – Tensorflow, Keras, Pandas, Pyspark, CNN, Deep Learning

- Developed and optimized deep learning models using Convolutional Neural Networks(CNNs) and TensorFlow/Keras for binary and multi-class retinal disease classification.
- On the RFMiD dataset implemented advanced techniques, transfer learning, data augmentation and image preprocessing.

NovaNest – Next.js, React, AWS

- Built and deployed a real estate web platform allowing users to list and search properties for rent or sale, featuring interactive map integration, real-time chatbot with Amazon Lex.
- Hosted on AWS cloud using EC2, RDS, S3 and VPC for scalability, availability and security.

Education

University of Michigan

Sep 2024 to May 2026

Master of Science in Computer and Information Science (GPA-3.88)

Fr. CRCE, Mumbai University

Aug 2016 to Oct 2020

Bachelor of Engineering in Electronics Engineering