

Tishyaketu Deshpande

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Education

Santa Clara University, School of Engineering Master of Science in Computer Science and Engineering (GPA - 3.65) Coursework: Distributed Systems, Design & Analysis of Algorithms, Pattern Recognition & Data Mining, Advanced Operating Systems, Object Oriented Analysis-Design & Programming, Computer Architecture, Wireless & Mobile Networks	Santa Clara, CA Sept 2023 - Jun 2025
Savitribai Phule Pune University Bachelor of Electronics & Telecommunications Engineering (GPA - 3.48) Coursework: Data Structures & Algorithms, Advanced Processors, Digital Image & Video Processing, Computer Networks, Operating Systems	Pune, India Aug 2016 - May 2020

Projects

- Inventory Management System | React, TypeScript, Redux Toolkit, Node.js, Express.js, MongoDB, Ant Design, Recharts, Zod, Docker**
- Designed and developed a full-stack inventory management system for tracking products, sales, purchases, and sellers, with role-based access and responsive UI for business users. Built a feature-rich React + TypeScript frontend using Redux Toolkit, Ant Design, React Hook Form, and SweetAlert2; implemented dynamic filters, pagination, and data visualizations with Recharts.
 - Engineered a scalable Node.js backend with Express.js, MongoDB (via Mongoose), and schema validation using Zod; supported RESTful APIs for CRUD operations across products, sales, purchases, and sellers. Developed comprehensive authentication and user profile management modules, including registration, login, password update, and secure session handling.
 - Created detailed sales analytics dashboards with daily, weekly, monthly, and yearly breakdowns to assist decision-making; implemented variant tracking and inventory update flows. Dockerized the full application for streamlined development and deployment; applied modular design patterns for maintainability and scalability.
- eCommerce Marketplace | Java, Spring Boot, Kafka, Keycloak, Docker, Prometheus, Grafana**
- Designed and built a scalable e-commerce platform using microservices architecture to simulate real-world marketplaces with modular, independently deployable services. Enables rapid feature development, scalability under high user traffic, and fault isolation across services – critical for modern online retail operations.
 - Implemented core services for product catalog management, order processing, payment simulation, inventory updates, and user notifications. Integrated Netflix Eureka for service discovery and Spring Cloud Gateway for intelligent routing and load balancing.
 - Ensured secure access and service-level authentication using Keycloak for role-based access control. Leveraged Apache Kafka for event-driven communication, enabling real-time updates and loose coupling between services. Employed Resilience4j for circuit breaking and fallback mechanisms, boosting system robustness during service failures.
 - Achieved complete observability using Micrometer, Zipkin (tracing), and Prometheus with Grafana (metrics and dashboards). Streamlined development and deployment with Docker and Docker Compose, supporting local orchestration and CI/CD integration

Professional Experience

Educational Vision Technologies Full Stack Engineer <ul style="list-style-type: none">Project 1: Resolved a critical bug in the TypeScript and React front-end that caused misalignment between the video timestamp and slide number in the generated PDF/PowerPoint presentations during viewport resizing. Debugged and corrected the logic to ensure consistent synchronization of slides and timestamps.Project 2: Designed and implemented an internal tool to streamline SCORM file generation. Developed a system to create zip files of course materials, offering both download capabilities and secure link generation. Integrated these features for seamless upload and deployment into Learning Management Systems (LMS), like Google Classroom.Developed front-end features using ReactJS, Django to build backend for web applications.Collaborated with Computer Vision, Natural Language Processing teams to experiment with 3rd party APIs and assess new feature feasibility.Participated in project planning by contributing to technical documentation and project roadmaps.Gained hands-on experience in deploying applications to AWS, focusing on production environments.Worked with a software development team across various domains to enhance coordination and efficiency in product development.	September 2024 - March 2025
Tata Consultancy Services Full Stack Engineer Project: Inspire <ul style="list-style-type: none">Developed a Business Solution Cost Estimator application to calculate estimated costs for setting up a BPO in a specified region, leveraging .NET Core 6, Angular, and SQL Server Management Studio across two platforms.Authored backend functionalities in C# and implemented frontend features using TypeScript and Angular. Enhanced data management through the development of stored procedures and migration scripts for data insertion.Ensured high-quality standards by writing Cypress BDD and Jest test cases, monitoring code performance, and optimizing application efficiency. Streamlined CI/CD deployments using Azure DevOps, delivering a reliable and scalable solution that aligned with business objectives.Hands-on experience of using Docker commands, deploying different services in linux environments and troubleshooting docker container issues.Wrote product maintenance manuals with extensive explanations, captured detailed documentations in Confluence for spike and development related user stories. Project: Ross Store <ul style="list-style-type: none">Built a retail buy sheet application for buyers and sellers, featuring over 200 fields and functionalities like purchase order (PO) creation, Excel import/export, and buy sheet generation. The frontend was developed using React.js, while the backend leveraged Spring Boot, and PostgreSQL was used as Database.Led as the Point of Contact (POC), providing code reviews and guiding team members in logic development and issue resolution. Designed and implemented backend algorithms for searching, sorting, and data processing, ensuring high performance.Improved project quality by writing Cypress automation scripts, Jest, and JUnit test cases, maintaining over 85% code coverage. Active participation in component design discussions with the team, conducted code reviews through GitHub and Collaborator tools.Executed CI/CD deployments using Jenkins, debugged issues with Spring Boot via Postman, and validated API responses using Swagger. Delivered a user-centric application that streamlined retail processes.	January 2021 - June 2023

Technical Skills:	
Programming Languages	: Java, Javascript, Typescript, Python 3, C++, C, GoLang
Web Technologies	: HTML5, CSS3, JSON, JWT, Next.js, jQuery, REST APIs, AWS, Azure, AWS S3, AWS ECS, React Router DOM, SweetAlert2, React Hook Form
Frameworks & Libraries	: Spring Boot, Spring Cloud, Spring Security, Resilience4j, Angular (2+), React.js, Node.js, Express.js, .NET Core 6, Redux, Zod, Recharts
Messaging & Streaming	: Apache Kafka, Event-Driven Architecture
Authentication & Security	: Keycloak, OAuth2, JWT
Database Technologies	: PostgreSQL, MongoDB, MySQL, Cassandra, SSMS (SQL)
Monitoring & Observability	: Prometheus, Grafana, Micrometer, Zipkin
DevOps & Containerization	: Docker, Docker Compose, Gradle, Git, CI/CD Concepts, AWS ECR
Testing & QA Tools	: Cypress (BDD), Jest (Unit Test), Mocha, Postman, Swagger
Agile & Documentation	: JIRA, Asana, Confluence