Ruthu Rajendra

Software Engineer | React • Java • Python | Building Scalable • Data-Focused • Reliable Systems
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SUMMARY

Software Engineer with expertise in full-stack development, API integration, and data-driven solutions. Skilled in React, Node.js, Java Spring Boot and Python with experience applying ML models and LLMs to enhance user experience. Adept at building scalable systems, optimizing workflows, and collaborating across teams to deliver innovative products

SKILLS

- **Programming Languages**: Python, Java, JavaScript, TypeScript, C++, Dart, HTML, CSS, SQL
- **Frameworks & Libraries**: Spring Boot, React, Node.js, Express, Django, Flask, Scikit-learn, OpenCV, Pandas, NumPy, JUnit, Jest
- **Tools & Platforms:** Git, GitHub actions, Jenkins, Jest, Postman, Figma, Tableau, AWS
- **Databases:** PostgreSQL, MySQL, MongoDB, Oracle, Firebase

EXPERIENCE

SCU Frugal Innovation Hub   **Jan 2024 - Present**
Full Stack Developer   *Remote*

- Built gamified learning bilingual math app in **React**, applying optimized data structures and algorithms to handle progressive levels and real-time feedback, leading to a **30% increase in student engagement**
- Designed and prototyped the app wireframes in **Figma**, incorporating accessibility and responsive design principles that improved usability scores in **student testing by 25%**
- Engineered a Translation API with Node.js and Express and developed secured REST API routing, enabling seamless multilingual content conversion and expanding the app's reach to **5,000+ students**
- **Automated CI/CD pipelines** and streamlined deployments with Jenkins, **reducing release cycle times by 40%** while improving delivery reliability across Agile sprints
- Established and **standardized SDLC practices**, improving code quality and reducing onboarding time for new team members by 20% through clearer documentation and reviews

PROJECTS

Job Tracker Microservices Platform (Java, Spring Boot, Kafka)

- Built a distributed microservices system using Java Spring Boot and Kafka for real-time event streaming, practicing high system resilience and scalability
- Developed Authentication and Application services with Spring Security, JWT, Spring Data JPA and PostgreSQL exposing RESTful APIs for user registration, application management, status workflows and interview logging

AI-Powered Chat Application for skincare Recommendation (React, Node.js, Express, MongoDB, BlenderBot)

- Developed a full-stack web application with React and Node.js/Express to deliver AI-driven skincare recommendations, integrating Facebook's Blender Bot 2.7B conversational model
- Built REST APIs for chat history, quiz logic, and user preferences, ensuring seamless backend–frontend communication with Axios
- Tested application reliability by conducting API and UI testing using Jest and Postman, validating robust integration across the stack

Collab-Board (TypeScript, MongoDB, Express.js, React, Node.js)

- Developed a real-time collaborative whiteboard and chat application using TypeScript and the MERN stack enabling users to draw, chat, and save sessions
- Implemented WebSocket to synchronize canvas updates and messages instantly, ensuring seamless real-time collaboration
- Designed a scalable session-based architecture with MongoDB, allowing multiple users to edit and retrieve shared work without data conflicts

Face Recognition Software (Python, JavaScript, OpenCV, Pandas, Matplotlib)

- Preprocessed a custom dataset of classmates' images by performing resizing, augmentation, cropping, and standardization
- Integrated machine learning models (SVM, KNN, Random Forest) using Python libraries achieving 98% recognition accuracy
- Automated data preprocessing and augmentation pipelines, reducing training time by 25%
- Enhanced recognition precision to 98% through hyperparameter tuning and implemented real-time identity prediction, allowing classmates to receive instant results from the trained model

EDUCATION

Santa Clara University   **Jan 2023 - Dec 2024**
Master of Science in Computer science   *Santa Clara*