KANAN SHAH

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SUMMARY

Software Engineer with a focus on full-stack and AI-integrated systems, experienced in Java, React, Next.js, Node.js, and OpenAI APIs. Shipped production-ready apps in both startup and government settings, with focus on intuitive user experiences and real-time data pipelines. Seeking to grow in a high-impact engineering role where I can learn fast and build user-first software.

EDUCATION

California State University, Sacramento.

Jan 2021 - May 2025

Bachelor of Science in Computer Science

Coursework: Database Management Systems, Data Structures and Algorithms, Artificial Intelligence, Data Analytics and Mining Operating Systems, Machine Learning, Software Engineering, Object Oriented Programming

TECHNICAL SKILLS

Languages:Java, Python, JavaScript, SQL, Bash, TypeScriptFrontend:React.js, Next.js, Material-UI, Bootstrap, HTML5/CSSBackend:Node.js, Spring Boot, Django, REST APIs, GraphQL

AI/ML: OpenAI APIs, Retrieval-Augmented Generation (RAG), YOLO, Pinecone

Cloud & DevOps: Firebase, AWS, Docker, Kubernetes, Git, CI/CD

Database: MySQL, Firestore, DynamoDB

Testing & Tools: Jest, JUnit, Selenium, Postman, Jira, Trello, Slack

EXPERIENCE

Software Engineering Intern | California Department Of Public Health, Sacramento

Feb 2024 - Dec 2024

- Spearheaded front-end development of the *MyInspectionBuddy* iOS app using Expo Go and integrated a Flask backend with FDA data to optimize inspection workflows.
- Designed and implemented a panorama-to-cube-map algorithm using OpenCV, enabling stereoscopic 3D image capture and improving object detection accuracy by 20% in real-world field inspections.
- Embedded stereoscopic images into interactive web environments using Panellum, delivering immersive, plugin-free 3D training simulations accessible directly via browser links.
- Captured 2D projections from stereoscopic images to generate labeled training data for the YOLO object detection model, enhancing automated inspection capabilities.
- Automated medical device recall data pipelines using Python, aligning with state data integrity practices and environmental reporting needs.

Software Engineer Fellow | HeadStarter AI , San Francisco

July 2024 - Sept 2024

- Developed scalable AI-powered web apps using React.js, Next.js, and OpenAI APIs, implementing features like intelligent Q&A and automated document generation based on MVC architecture.
- Integrated REST and GraphQL APIs to synchronize legacy enterprise data with modern web applications, enhancing system interoperability.
- Participated in GitHub-based code reviews, enforcing standards via ESLint and Prettier to ensure clean, maintainable code across React-based applications.
- Authored technical specs and Markdown-based user manuals for AI tools, improving onboarding for internal devs and enhancing usability for non-technical stakeholders.

PROJECTS

Inventory Management Web App | Next.js, Firebase Firestore, Spoonacular API, Material-UI, Axios

- Developed a responsive inventory management app using Next.js and Firebase Firestore, enabling real-time stock tracking and personalized recipe recommendations to streamline food resource use.
- Designed modular UI components and integrated REST APIs to automate stock status, adhering to Material-UI guidelines and enhancing overall UX efficiency.

Next Al-Support.io | Next.js, Pinecone, OpenRouter API, Retrieval-Augmented Generation (RAG)

- Built an AI chatbot using React.js, Pinecone vector DB, and Retrieval-Augmented Generation (RAG) to deliver contextual Q&A and automated documentation workflows.
- Conducted unit/integration tests using Jest and applied agile sprints to iterate backend services based on continuous stakeholder feedback.

LuxPartyRents - Commercial Equipment Rental Website | Spring Boot, MySQL, JavaScript, Bootstrap, HTML/CSS

- Led development of a full-stack web application using JavaScript and Spring Boot, enabling real-time order processing and inventory management for a real-world client.
- Collaborated with stakeholders to build intuitive UIs using Bootstrap, aligning designs with UX best practices and scaling to support future rental product categories.
- Documented technical architecture and user guides, facilitating client onboarding and system maintenance.