

KARAN BOHARA

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SUMMARY

A detail-oriented and adaptable Software Developer with hands-on experience building full-stack applications and AI-powered solutions across Java, React, Flutter, and Python. Proven ability to translate complex requirements into responsive, scalable software that enhances user experience and system efficiency. Passionate about mastering emerging technologies and thriving in fast-paced, agile environments to deliver high-quality, real-world solutions.

PROJECT EXPERIENCE

VisaCoach – AI-Powered F1 Visa Interview Web App

Tech Stack: Next.js, Vapi.ai, OpenRouter (GPT-4), Supabase, Tailwind CSS

- Developed a dynamic F1 visa interview simulation tool featuring real-time voice interaction to help users prepare for interviews.
- Engineered the backend using Vapi.ai for advanced conversational AI and integrated OpenRouter's GPT-4 to generate instant, personalized feedback and performance scores.
- Architected and implemented the user data management system with Supabase, securely storing interview history and results to track progress over time.

<https://github.com/Karanbohara01/visa-coach-f1-visa-interview-webapp.git>

Robotic Dog for Child Engagement (Ages 4–12)

Tech Stack: Python, NLP, YOLOv10, Computer Vision

- Architected an interactive robotic assistant designed to enhance early childhood education (ages 4–12) through engaging, multi-modal interactions.
- Integrated YOLOv10 for real-time object detection and advanced computer vision techniques for face recognition, enabling the robot to identify and respond to children and objects.

- Implemented Natural Language Processing (NLP) to analyze and correct children's pronunciation, demonstrably improving learning efficiency and engagement.
- Featured in Tech Pana <https://youtu.be/lpN0O6bWJ4s?si=ev05nwWQL5YVW7nx>

Digital Vault – Secure Web Application

Tech Stack: MERN Stack (MongoDB, Express.js, React, Node.js), JWT, Cloudinary, Stripe, MFA

- Engineered a full-stack digital vault for secure document management, featuring file uploads, dynamic watermarking, and role-based access control (RBAC).
- Fortified application security by implementing Multi-Factor Authentication (2FA), account lockout mechanisms, and protections against the OWASP Top 10 vulnerabilities.
- Integrated Stripe for subscription-based payment processing and Cloudinary for robust, secure cloud storage of sensitive user files, ensuring data integrity and audit logging.

<https://github.com/Karanbohara01/digital-vault-final.git>

Social Media-Based Marketplace (Web & Mobile)

Tech Stack: MERN Stack (Web), Flutter (Mobile), Dart, MongoDB, Express.js, Node.js

- Designed and built a unified e-commerce and social networking platform across both web and mobile, creating a seamless user experience.
- Developed a real-time chat functionality for the Flutter mobile app, boosting buyer-seller communication and transaction efficiency.
- Enhanced user engagement and increased average session duration by merging social features with a functional marketplace.
- View Web App: <https://github.com/Karanbohara01/mern-marketplace.git>
- View Mobile App: https://github.com/Karanbohara01/koselie_flutter_app.git
- **E-commerce Website**

Tech Stack: React, Spring Boot, PostgreSQL

- Developed a full-stack e-commerce platform with a focus on high-performance CRUD operations for products, users, and orders.
 - Optimized backend data processing and query execution in Spring Boot, resulting in **impactful improvement** in data management performance and faster page loads.
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TECHNICAL SKILLS

- **Languages:** Java, Python, JavaScript, Dart, SQL
 - **Frameworks & Libraries:** React, Spring Boot, Flutter, Node.js, Express.js, Next.js, Tailwind CSS
 - **Databases:** PostgreSQL, MongoDB, MySQL, Supabase
 - **Tools & Platforms:** Git, GitHub, Trello, Firebase, Vapi.ai, OpenRouter, Cloudinary, Stripe
 - **Methodologies:** Agile, Scrum
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EDUCATION

BSc (Hons) Computing | Coventry University — Softwarica College of IT and E-commerce

Expected Completion: 2025

- **Relevant Coursework:** Software Development, Data Structures & Algorithms, Database Management Systems, Web Engineering, Professional Practice.
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STRENGTHS

- **Versatile Development:** Successfully delivered multiple full-stack, mobile, and AI-integrated projects from concept to deployment.
- **Collaborative Mindset:** Strong communication and collaboration skills honed in agile development teams using tools like Trello and Git.
- **Rapid Learner:** A growth-oriented mindset with a proven passion for quickly mastering new technologies and solving complex, real-world problems.