

KARAN BOHARA

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SUMMARY

An adaptable Software Developer specializing in building full-stack and AI-powered applications. I excel at translating complex requirements into efficient, user-centric software in fast-paced environments.

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

- Engineered a seamless social e-commerce platform across web and mobile, developing a real-time chat feature in Flutter that boosted buyer-seller communication and significantly increased user engagement.
- 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

Improved data management performance and page load speed on a full-stack e-commerce site by optimizing backend query execution in Spring Boot.

TECHNICAL SKILLS

Java, Python, JavaScript, React, Spring Boot, Flutter, Node.js, PostgreSQL, MongoDB, Git, Agile/Scrum.

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.

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.