

Harsh Singh

Bhopal, Madhya Pradesh 462036 | +91 7047272436 | harshsingh704888@gmail.com

LinkedIn: [linkedin.com/in/harshsingh-io](https://www.linkedin.com/in/harshsingh-io) | GitHub: github.com/harshsingh-io | Portfolio: harshsingh.io

PROFESSIONAL SUMMARY

Results-driven Software Engineer with specialized expertise in Generative AI and full-stack cloud architecture. Experienced in enhancing multi-language code generation models and architecting scalable microservices-based backends with FastAPI and AWS. Skilled in the complete development lifecycle, from AI data curation to building intuitive mobile frontends with Flutter.

WORK EXPERIENCE

AI Engineer | Outlier | Remote

February 2025 - Present (Full-time Freelance)

- Enhanced the performance of **multi-language code generation models** (Java, Python, Kotlin) by designing **sophisticated prompts** and curating a **large-scale instruction-tuning dataset** aimed at improving **model reasoning and accuracy**.
- Served as a **coding subject matter expert** in a **human-in-the-loop AI training pipeline**, **evaluating and ranking** 1000's of AI-generated code samples.
- Systematically **identified and corrected language-specific errors** in model outputs by authoring **"gold-standard" solutions** and **detailed code rewrites**, providing critical feedback to **reduce model hallucinations** and **improve instruction-following**.

Software Engineer | Persist Ventures | Remote

November 2024 - January 2025

- Architected scalable **FastAPI backend** with microservices architecture, implementing dual database system using PostgreSQL for structured data and MongoDB for unstructured data with **AWS S3** integration
- Developed comprehensive RESTful API endpoints for user management and AI chat interface, integrating **OpenAI API** for intelligent fashion recommendations with **40% faster response times**
- Built intuitive mobile interface using **Flutter** with BLoC pattern and Freezed for state management, implementing real-time chat and wardrobe management features achieving **99.9% uptime**

Software Engineer Intern | BlueMango Labs | Bhopal, India

January 2024 - September 2024

- Drove a **35% increase in user engagement** and retention for the **SuperAstro** mobile app by strategically implementing Firebase push notifications and redesigning key user interfaces to improve workflow.
- Scaled backend infrastructure to support **10x concurrent users** using AWS S3, DynamoDB, and MQTT protocol
- Developed complete expert portal with analytics dashboard and consultation management system using Flutter and FastAPI

TECHNICAL SKILLS

Programming Languages: Python, Java, Kotlin, SQL (Structured Query Language), JavaScript

Mobile Development: Flutter, Android SDK (Software Development Kit)

Backend Technologies: FastAPI, RESTful APIs, Microservices Architecture

Databases: PostgreSQL, MongoDB, Firebase Firestore, Amazon DynamoDB

Cloud & DevOps: Amazon Web Services (AWS) (S3, DynamoDB, Lambda), Firebase, Docker, CI/CD, Git

AI & Machine Learning: Reinforcement Learning from Human Feedback (RLHF), Instruction-Tuning, Prompt Engineering, LLM Evaluation & Red-Teaming, AI Training Dataset Curation, OpenAI API Integration

Architecture Patterns: Model-View-ViewModel (MVVM), Clean Architecture, Domain-Driven Design (DDD), BLoC Pattern

PROJECTS

AI Fashion Stylist Platform | Contract with Persist Ventures

October 2024 - November 2024

- Engineered full-stack AI fashion platform using **Flutter** and **FastAPI**, achieving **40% faster** style recommendations.
- Technologies:** Flutter, FastAPI, OpenAI API, PostgreSQL, MongoDB, AWS S3, Docker, JWT Authentication

Deep Learning Fruit Analysis System | Flipkart Grid 2024 Semi-Finalist

August 2024 - September 2024

- Achieved **88% classification accuracy** using TensorFlow and VGG16 model with data augmentation and transfer learning
- Technologies:** Python, TensorFlow, Keras, VGG16, Docker, Transfer Learning

Additional Projects: [KanbanBoard](#) (Agile task management), [Passport Seva](#) (Android app with Material Design 3)

ACHIEVEMENTS

- Led **winning team** at CodeEnergia National Hackathon 2023 among **50+ teams** with EcoSync project
- Solved **150+ Data Structures and Algorithms** problems on LeetCode, GeeksforGeeks, and Coding Ninja
- Achieved **semi-finalist** position in Flipkart Grid 2024 hackathon for Deep Learning project
- Selected as **Android Lead** for Google Developer Group-SIRT, growing membership by **500+**

EDUCATION

Bachelor of Technology in Computer Science | CGPA: 7.8/10

July 2021 - June 2025

Sagar Institute of Research & Technology (SIRT), Bhopal, Madhya Pradesh