Rishul Gupta

github.com/RishulGupta

Education

National Institute of Technology, Kurukshetra B.Tech in Information Technology Aug 2023 - Present

Work Experience

AI Intern – Info Edge (Naukri, 99acres, Shiksha, Jeevansathi)

Jun 2025 - Jul 2025

- Developed agentic AI prototypes using multi-agent orchestration to automate support and content workflows across Naukri, 99acres, Shiksha and Jeevansathi platforms.
- Designed GenAI pipelines integrating OpenAI LLMs, LangChain, and RAG to enhance recommendation engines and dynamic user experiences.
- o Improved Naukri's job search matching accuracy by 35% using vector-based semantic search and profileoptimized query expansion.
- Collaborated with search engineering team to deploy a GenAI-powered smart filtering system for recruiters, improving job-to-candidate relevance by 40%.

Projects

Smart Bike Helmet App

- Engineered an IoT-enabled helmet hardware with real-time crash detection, reducing false alarms by 35%.
- o Developed an AI-powered accident prediction system using real-time sensor data stored in Firebase Realtime Database to anticipate collision risks and provide proactive alerts.
- o Designed an intuitive mobile app with Firebase Authentication for secure user access, enabling real-time monitoring, user alerts, hands free calling and emergency contact management reducing data sync latency from 1.5s to 0.8s.

AI-Based Image Processing System (Ongoing)

- o Programmed a deep learning model using TensorFlow and ONNX, achieving 92% accuracy on 50,000+ images.
- Optimized neural networks, cutting inference time by 57% (2.1s to 0.9s).
- Achieved an F1-score of **0.87** for better precision-recall balance.

Achievements

2nd Place - Student Innovation Showcase

Innoventure 2025

- Led a 3 member team, managing end-to-end hardware and software development, securing 2nd position from over 100+ competing teams.
- Built an IoT-powered Smart Bike Helmet integrating AI-based deep learning crash detection (90%+ accuracy), emergency SOS alerts, and GPS tracking.
- Implemented mobile app integration using Android development & Firebase, enabling real-time monitoring, handsfree calls, and helmet tracking.

College level winners, Smart India Hackathon

- Enhanced an advanced SAR image colorization model using Deep Learning, achieving 25% faster processing and improving colorization accuracy by 15%.
- Trained a custom deep learning model on SAR-Optical image pairs, achieving improved predictive accuracy.
- Optimized preprocessing techniques, reducing data cleaning time by 30%.

Skills

Languages: C/C++, Kotlin, Python, Java

Frameworks: XML, Jetpack Compose, LangChain, Spring AI

Databases and Architecture: SQL, RoomDB, Firebase, MVVM, ChromaDB, FAISS

APIs and Libraries: RESTful APIs, MCP server, Retrofit, OpenAI APIs

Technologies: Machine Learning, Deep Learning, TensorFlow, IoT, Generative AI, RAG, Agentic AI

github.com/RishulGupta/SmartBikeHelm