ARYAN KUMAR

Vadodara, Gujarat, India | aryankjhaa@gmail.com | +91-9835089300 | linkedin.com/in/jhaaryaan | github.com/jhaaryaan

PROFESSIONAL SUMMARY

B.Tech AI student with hands-on experience in Machine Learning, Deep Learning, and full-stack development. Proven ability to design end-to-end ML pipelines on large-scale geospatial datasets and build intelligent, production-ready applications. Skilled in Python, FastAPI, Flask, SQL, and AI integration with a strong foundation in NLP, database management, and RESTful API design. Passionate about delivering real-world impact through clean, scalable, and secure software solutions.

EXPERIENCE

AI/ML Intern | BISAG-N, Gandhinagar *Jan 2026 – Present*

- Developed and optimized Machine Learning and Deep Learning models on large-scale geospatial and remote sensing datasets using Python, improving spatial prediction accuracy.
- Engineered robust end-to-end ML pipelines covering data preprocessing, feature engineering, model training, validation, and hyperparameter tuning for production-grade performance.
- Applied supervised and unsupervised learning techniques for spatial-temporal data analysis, extracting actionable insights for government and space applications.
- Evaluated model performance using Accuracy, Precision, Recall, F1-Score, and Confusion Matrix; iteratively improved results through systematic experimentation.
- Collaborated with multidisciplinary research teams to deliver AI-driven analytical solutions, translating complex model outputs into clear findings for non-technical stakeholders.

PROJECTS

PG AI Query Engine — NLP-to-SQL • pg-ai.vercel.app | Tech: Python, FastAPI, PostgreSQL, AI APIs

- Built an AI-powered NLP-to-SQL engine that converts plain English queries into optimized, validated SQL, eliminating manual query writing for non-technical users.
- Implemented automatic schema discovery using dynamic table inspection, enabling zero-configuration database integration for any PostgreSQL schema.
- Architected dual-tier AI inference pipeline (Pollinations AI + GPT4Free fallback) ensuring 99%+ uptime and resilient query generation under provider failures.
- Enforced multi-layer security: read-only mode, dangerous keyword blocking (DROP, DELETE, ALTER), system table protection, and table-scope enforcement.
- Delivered structured JSON responses with query, explanation, confidence score, and visualization suggestions via FastAPI; integrated Neon PostgreSQL for cloud scalability.

BharatStore — Full-Stack App Marketplace • bharat-store.vercel.app | Tech: Python (Flask), MongoDB, HTML, CSS, JavaScript

- Designed and deployed a full-stack app marketplace tailored for Indian users, supporting developer publishing, user discovery, and admin moderation workflows.
- Designed role-based access control (User, Developer, Admin) with secure authentication using Flask-Login and Bcrypt password hashing.
- Built an app submission and approval pipeline with admin review, rejection notes, and status tracking, reducing moderation overhead.
- Developed search and category filtering system, improving discoverability across hundreds of app listings.
- Created a modern responsive UI with Glassmorphism design using Indian aesthetic (Saffron, White, Green), enhancing user engagement and brand identity.

TECHNICAL SKILLS

Languages: Python, Java, C, SQL, JavaScript | **Frameworks:** Flask, FastAPI | **Web:** HTML, CSS, JavaScript
Databases: PostgreSQL, MongoDB, SQL | **Tools:** Git, GitHub, Tableau | **Concepts:** Machine Learning, Deep Learning, NLP, AI Systems, REST APIs, DBMS

EDUCATION

B.Tech in Computer Science — Artificial Intelligence *2022 – 2026*
Parul University, Vadodara | CGPA: 7.81/10

CERTIFICATIONS & ACHIEVEMENTS

Introduction to Modern AI | **Introduction to Cybersecurity** | **PU Code Hackathon 2.0 Participant** | **Gujarat Tableau User Group Workshop**