Aritraditya Roy

Agartala, Tripura

aritraditya.roy@gmail.com | +91-9392351645 | LinkedIn | GitHub

Summary: Passionate Computer Science student specializing in cloud-native development and AI applications. Proven expertise in Google Cloud Platform, machine learning, and full-stack development with 2+ years of hands-on experience building scalable applications. Strong foundation in cloud infrastructure automation, containerization, and modern web technologies.

🎓 Education

Vellore Institute of Technology, Bhopal	*Aug 2021 – Jun 2025*
Bachelor of Technology in Computer Science Engineering (CSE)	*CGPA: 6.94*
Narayana Junior College	*May 2021*
Class XII (MPC)	*90.0%*
Narayana High School	*March 2019*
Class X	*70.0%*

🗂 Key Projects

VITB Chatbot – AI Chat Assistant for VIT Bhopal   *Jan 2025 – Apr 2025*
Role: Lead AI Developer

- Developed a production-ready multilingual chatbot using Flask backend and JavaScript frontend, integrating LLaMA2 via LangChain for intelligent query processing
- Implemented hybrid response system combining fuzzy string matching (95% accuracy for common queries) with AI-based fallback generation
- Built comprehensive features including dark mode UI, floating chat interface, real-time language translation, and integrated inquiry form
- Achieved 90% user satisfaction rate during beta testing with 100+ concurrent users

Technologies: Python, Flask, LangChain, LLaMA2, JavaScript, HTML, CSS, FuzzyWuzzy, MyMemory API

Car Price Prediction Using Machine Learning   *Mar 2025 – Apr 2025*
Role: ML Engineer

- Built and deployed a Random Forest Regressor model achieving 87% accuracy in predicting used car prices from 10,000+ vehicle records
- Implemented comprehensive data preprocessing pipeline using Pandas, handling missing values and feature engineering
- Created interactive Streamlit web application enabling real-time price predictions with user-friendly interface
- Optimized model performance through hyperparameter tuning, reducing prediction error by 15%

Technologies: Python, scikit-learn, Pandas, Streamlit, Joblib, NumPy

Food Share Network - NGO Management Platform   *Jul 2023 – Nov 2023*
Role: Database Lead & Full-Stack Developer

- Led database architecture design and implementation for donation tracking and volunteer coordination system serving 500+ users
- Managed team of 6 developers, coordinating database integration with frontend and backend components
- Implemented MongoDB schema supporting complex queries for donation matching and volunteer scheduling
- Reduced data retrieval time by 40% through optimized indexing and query optimization

Technologies: MongoDB, React.js, Node.js, Express.js, JavaScript, HTML, CSS

E-Commerce Platform with Payment Integration *Dec 2022 – Jan 2023*
Role: Full-Stack Developer

- Developed secure e-commerce platform with responsive design supporting 100+ concurrent users
- Implemented complete payment processing system with cart management and order tracking
- Built RESTful APIs for product catalog, user authentication, and transaction processing

Technologies: Node.js, MongoDB, Express.js, JavaScript, HTML, CSS

Hotel Management System *Jul 2023 – Aug 2023*
Role: Full-Stack Developer

- Developed comprehensive hotel management system handling booking, guest records, and payment processing
- Implemented automated booking confirmation and payment tracking features

Technologies: Python, Tkinter, SQLite

Forest Runner – A 2D Unity Game *Nov 2021 – Dec 2021*
Role: Game Developer

- Designed and programmed an optimized Unity 2D game featuring dynamic obstacles and engaging gameplay
- Implemented custom asset creation and integrated game sound effects for enhanced user experience

Technologies: Unity 2D, C#, Game Audio, Asset Creation

💼 Professional Experience

Bharat Intern *Oct 2023 – Nov 2023*
Role: Full-Stack Developer Intern (Remote)

- Contributed to video conferencing platform development, implementing real-time audio/video streaming features
- Collaborated with 4-member development team using Agile methodology
- Optimized WebRTC implementation resulting in 25% reduction in connection latency

Technologies: HTML, CSS, JavaScript, Node.js, WebRTC

InternPe *Jul 2023 – Sep 2023*
Role: Web Developer Intern (Remote)

- Developed responsive calculator application and enhanced to-do list tool with full CRUD functionality
- Implemented local storage for data persistence and user preference management
- Delivered projects 2 weeks ahead of schedule with 100% test coverage

Technologies: HTML, CSS, JavaScript, Local Storage API

💻 Technical Skills

- **Programming Languages:** Python, Java, JavaScript, HTML, CSS, Kotlin, C#
- **Cloud Platforms:** Google Cloud Platform (GCP), Amazon Web Services (AWS)
- **Cloud Technologies:** BigQuery, Kubernetes, Docker, Compute Engine, IAM, Cloud Functions, Security Command Center
- **Frameworks & Libraries:** React.js, Node.js, Express.js, Flask, LangChain, Streamlit, scikit-learn
- **Databases:** MongoDB, MySQL, SQLite, BigQuery
- **Development Tools:** Git, Postman API, Docker, Figma, Unity, VS Code
- **AI/ML:** Machine Learning, Natural Language Processing, LLaMA2, Pandas, NumPy
- **Soft Skills:** Team Leadership, Agile Development, Problem Solving, Technical Documentation

✳ Key Certifications

- **Google Cloud:** Computing Foundation, Security Command Center (Intermediate), BigQuery Data Insights
- **Infrastructure:** Kubernetes Management, Cloud Networking, Foundational Infrastructure Tasks
- **Data & AI:** ML APIs Preparation, Data/ML/AI Baseline Badge
- **AWS:** Cloud Architecting Academy
- **Development:** Postman API Student Expert, Web Development (HTML/CSS/JS)
- **Specialized:** Chatbot Development with Chatfuel, Google Data Analytics

🏆 Achievements & Leadership

- **Postman API Student Expert** – Advanced API testing and development certification
- **Core Member** – GeeksForGeeks VIT Bhopal Chapter, organizing coding workshops and hackathons
- **Consistent Coder** – 100+ days active coding streak on LeetCode and GeeksForGeeks platforms
- **Community Volunteer** – Crowd fundraising coordinator at Muskurahat Foundation

ⓘ Additional Information

- **Languages:** English (Fluent), Hindi (Native), Bengali (Native), Telugu (Conversational)
- **Interests:** Open Source Contribution, Technical Writing, Competitive Programming, Game Development
- **Availability:** Seeking full-time opportunities post-graduation (June 2025)