Ravinder Singh

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Summary

AI Engineer with hands-on experience building LLM-based applications, RAG pipelines, and backend systems using Python and FastAPI. Worked on developing AI workflows, REST APIs, and deploying production-ready applications across cloud platforms including AWS and GCP. Strong foundation in machine learning, data processing, and scalable AI systems with experience collaborating on real-world projects and deployments.

Education

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech(AI)	Amity University, Uttar Pradesh	8.35/10	2022-2026
Senior Secondary	Central Board of Secondary Education	87%	2021
Secondary	Central Board of Secondary Education	88.2%	2019

Experience

- **Lucidus AI Eduventures** December 2025 – April 2026
  AI Engineer Vishakhapatnam
  - Built AI applications and backend systems using Python and FastAPI.
  - Developed REST APIs, RAG pipelines, and multi-agent AI workflows for LLM-based applications.
  - Managed Docker deployments, cloud infrastructure, monitoring, and production workflows across AWS and GCP.
  - Handled optimization, debugging, version control, and maintenance for deployed AI systems.

- **National Physical Laboratory, CSIR, Government of India** May 2025 – July 2025
  Research and Development Intern New Delhi, India
  - Developed scalable data pipelines for IoT-based monitoring and analytics systems.
  - Performed anomaly detection and exploratory data analysis on large-scale sensor datasets.
  - Worked with cloud storage, distributed processing workflows, and real-time telemetry data.

Projects

- **GraphLens: AI-Powered Network Intelligence & Automation Platform**
  - Engineered a scalable network analytics platform using Python and FastAPI to process distributed telemetry and security alerts.
  - Designed a Neo4j knowledge graph for real-time network dependency mapping and anomaly analysis.
  - Built a hybrid RAG and multi-agent LLM workflow to automate root-cause analysis for network incidents.
  - Developed a real-time Next.js dashboard and containerized deployments using Docker.

- **RAG-Federated Learning Privacy Framework**
  - Built a privacy-preserving AI framework integrating Retrieval-Augmented Generation (RAG) with federated learning.
  - Developed distributed ML workflows with secure aggregation and decentralized model training.
  - Implemented vector search and retrieval pipelines for contextual AI response generation.

- **Trinetra Anveshaka: UAV Parameter Estimator**
  - Developed a deep learning model for UAV parameter estimation using attention-based architectures.
  - Applied signal processing and machine learning techniques for robust prediction across noisy datasets.
  - Optimized model inference for real-time analytics and monitoring applications.

Skills

- **Artificial Intelligence**: Machine Learning, Transformers, Generative AI, LLMs, RAG, Prompt Engineering, Agentic AI Systems, LangChain
- **Backend & APIs**: Python, FastAPI, REST APIs, SQL, OOP, Asynchronous Programming
- **Cloud & Deployment**: AWS, GCP, Azure, Docker, Google Cloud Run
- **Data & Analytics**: Pandas, Matplotlib, SciPy, FAISS, Qdrant, NumPy
- **Tools**: Git, Linux, Docker,Overleaf

Certifications

- **Oracle Cloud Infrastructure 2025 Certified Generative AI Professional**, Oracle 2025
- **Oracle Cloud Infrastructure 2025 Certified Data Science Professional**, Oracle 2025
- **CCNA: Introduction to Networks**, Cisco Networking Academy 2025
- **ChatGPT Prompt Engineering for Developers,**, Deep Learning AI 2024

Achievements

- Published a research paper at IEEE ICCSAI 2025 on AI-driven analytics.
- Filed a provisional patent: Smart IoT-AI Fluid Leakage Detection System.
- Published research on privacy-preserving AI using federated learning
- Chairperson, IEEE Student Branch, leading technical initiatives, research culture and community engagement.
- President, Hardly Human AI Club, organizing AI-focused events and projects.