

Yuvraj Singh Pathania

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EDUCATION

Delft University of Technology

Master of Science, Computer Science (In Progress)

Delft, Netherlands

2025 – 2027

Vellore Institute of Technology

Bachelor of Technology, Computer Science Engineering; GPA: 8.43/10

Vellore, India

2019 – 2023

EXPERIENCE

CloudSEK

December 2022 – June 2025

Software Development Engineer I

Bengaluru, India

- Deployed AI automation pipelines using LLMs (OpenAI, fine-tuned models) to analyze 100k+ daily cyber events, delivering real-time insights in under 3 seconds and cutting manual analysis time by 40%.
- Built a RAG pipeline to automate client asset verification (keywords, subdomains, logos), eliminating 14 hours of weekly manual effort and improving data quality by 45%.
- Revamped a classification module using fine-tuned LLMs, increasing detection accuracy to 92% and replacing a previously manual review process.
- Built a hybrid ML+LLM model to flag client subdomains in data breaches with 93% accuracy, enabling automated reporting for new clients.
- Engineered a CLI tool to automate 100GB/day data ingestion (acquisition, validation, Elasticsearch indexing), reducing manual data entry effort by 50%.

Vidyo.ai

January 2022 – May 2022

Software Engineering Intern

Bengaluru, India

- Streamlined media workflows using async FastAPI patterns and cloud migration, reducing API latency by 30% and increasing upload speeds by 67%.

Solus.ai

June 2021 – August 2021

Summer Intern (Machine Learning)

Remote

- Optimized a hybrid recommender engine on 1M+ data points by rewriting in Julia with SIMD and distributed computing, achieving 60% faster matrix operations.

PROJECTS

Yuyabre (Prosus AI Hackathon) | Agentic AI, Python, React.js

- Built an AI-powered home management system automating inventory tracking, grocery ordering, and expense splitting for non-technical end users.

Mise.ai | Python, FastAPI, React, RabbitMQ, Kubernetes, OpenAI, Vertex AI

- Architected a full-stack AI platform for restaurant analytics with natural language querying, ML-powered sales forecasting, and easy-to-use interfaces for non-technical teams; deployed on Kubernetes with KEDA autoscaling.

RESEARCH WORK

- **Zone-Based Delivery Optimization: A Framework for Sustainable Last-Mile Logistics** — First Author and Presenter at ICoRD'25, IIT Hyderabad; published in *Responsible and Resilient Design for Society, Vol. 5* (Springer, 2025).

AWARDS AND ACHIEVEMENTS

- Speaker at PyDelhi Conf 2023: presented *Multi-Client Log Streaming with Python and Server-Sent Events (SSE)*, communicating technical solutions to a non-technical audience.
- Competed in Google Hash Code 2021, achieving a global rank of 5,667 out of over 125,000 participants.

TECHNICAL SKILLS

Programming Languages: Python, SQL, Java, JavaScript

Frameworks/Technologies: FastAPI, Django, Node.js, React, Postgres, MongoDB, Elasticsearch, Kafka

AI Tools & Platforms: OpenAI, Gemini (Vertex AI), Claude, Langchain, Agentic AI, Pinecone, PyTorch, Scikit-learn

DevOps & Infra: Docker, Linux, Kubernetes, GitHub Actions, GitLab CI/CD, AWS (S3, Lambda, EC2), RabbitMQ