Yuvraj Singh Pathania

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Education

Delft University of Technology — Delft, Netherlands
Master of Science, Computer Science (In Progress) — *2025 – 2027*

Vellore Institute of Technology — Vellore, India
Bachelor of Technology, Computer Science Engineering; GPA: 8.43/10 — *2019 – 2023*

Experience

RSM Netherlands — September 2026 – Present
AI Engineer — *Hoofddorp, Netherlands*

- Developing an AI powered tax-news tracking platform to help tax professionals stay current on developments relevant to their clients and enable faster response times.
- Building an evolving world model that monitors global events and recommends actions for clients.

CloudSEK — December 2022 – June 2025
Software Development Engineer I — *Bengaluru, India*

- Owned and shipped an LLM-powered pipeline end-to-end that preprocessed and analysed 100k+ daily documents, generating structured outputs in under 3 seconds and reducing manual analysis time by 40%.
- Designed a retrieval-augmented generation (RAG) pipeline that automated verification by parsing and cross-referencing technical documents, keywords, and subdomains, eliminating 14 hours of weekly manual effort and improving data quality by 45%.
- Developed a hybrid ML+LLM classification service using engineered prompts and fine-tuned modules to flag client assets in breach data with 93% accuracy, replacing manual review with a reliable, user-facing signal.
- Engineered an ingestion platform handling 100GB/day of sensitive data (validation, Elasticsearch indexing), cutting manual effort by 50% and enabling scalable, compliant-by-design workflows.

Projects

Mise.ai | *Python, FastAPI, React, Kubernetes, RabbitMQ*

- Built the full-stack implementation of an AI platform for restaurant food logistics with ML forecasting and natural-language querying; sole software implementer in a three-person TU Delft Software Architecture team.

Stem-Agent Framework | *LangGraph, Python*

- Built a workflow that inspects SQLite databases or GitHub repositories and generates specialist agents through probe, architecture, execution, and evaluation stages.
- Added least-privilege tools, repository-grounded instructions, lint validation, and trial-task checks.

AURORA (ABN AMRO) | *Agentic AI, RAG, Python*

- Collaborated in a four-person team on a seven-stage AI content-governance PoC with retrieval, quality checks, KPI evaluation, and an auditable approval trail; implemented intent classification and the UI. The PoC was presented to the Head of Marketing.

Research, Talks & Open Source

- **Selected speaker**, PyCon NL 2026 (Utrecht, October 2026): *Fire, Forget, Regret: Building Resumable Python Pipelines.* **Speaker**, PyDelhi Conf 2023: *Multi-Client Log Streaming Service with Python and Server-Sent Events.*
- **Open source**: stitch-durable (PyPI, GitHub), a zero-dependency library for durable async Python pipelines.
- **Published**, *Zone-Based Delivery Optimization: A Framework for Sustainable Last-Mile Logistics.* First author and presenter, ICoRD'25, IIT Hyderabad (Springer, 2025).

Technical Skills

Languages: Python, SQL, Java, JavaScript
Frameworks & Data: FastAPI, Django, PostgreSQL, Elasticsearch, MongoDB, Node.js, React
Cloud & DevOps: AWS (S3, Lambda, EC2), Docker, Kubernetes, GitHub Actions, GitLab CI/CD, Kafka, RabbitMQ
AI/ML: LangChain, LangGraph, RAG, Claude API, OpenAI, Vertex AI, PyTorch