

Aadya Singh

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PROFILE

Master of Computer Science student at the University of Sydney specialising in Data Science & AI and Software Engineering. Builds production-shaped AI and ML systems with Python, FastAPI, LangGraph, PostgreSQL, Docker, scikit-learn, and Next.js, with emphasis on workflow orchestration, model monitoring, testing, and technical documentation.

EDUCATION

Master of Computer Science (Advanced Entry) <i>University of Sydney</i> Specialisations: Data Science & AI, Software Engineering Current WAM: 80	2025 - 2027 Sydney, Australia
PG Certificate in AI/ML & Data Science <i>Indian Institute of Technology Roorkee</i> Final Score: 85/100 Machine Learning: 86 Deep Learning: 84	2024 - 2025 Roorkee, India
Bachelor of Engineering in Biotechnology <i>M.S. Ramaiah Institute of Technology</i> First Class with Distinction CGPA: 8.0/10	2019 - 2023 Bengaluru, India

KEY PROJECTS

AgentOps Support Automator <i>Python, FastAPI, LangGraph, PostgreSQL, Docker, Next.js github.com/aadyasingh55/agentops-support-automator</i> - Built a LangGraph-based multi-agent support automation system with ingestion, planning, lookup, drafting, and human-review nodes exposed through a FastAPI service. - Implemented persisted workflow state, review gating, failure states, and PostgreSQL-backed trace history to make agent decisions inspectable and recoverable. - Added pytest coverage for routing logic, low-risk auto-resolution, and high-risk human approval paths.	2026
MLOps Drift Monitor <i>Python, FastAPI, scikit-learn, PostgreSQL, Docker, Next.js github.com/aadyasingh55/mlops-drift-monitor</i> - Trained a scikit-learn predictive-maintenance classifier on the AI4I 2020 dataset, achieving 0.975 accuracy and 0.965 ROC AUC on a 2,000-row test split. - Deployed model inference behind FastAPI with typed request validation, prediction logging, and PostgreSQL-backed monitoring records. - Built a drift-check workflow comparing live sensor distributions against a reference profile; added tests for inference, schemas, and drift edge cases.	2026
Medical Retrieval-Augmented Generation System <i>Python, Streamlit, PyTorch, Hugging Face, scikit-learn github.com/aadyasingh55/Medical-RAG-System</i> - Built a local medical RAG workflow for ingestion, chunking, indexing, evidence retrieval, grounded generation, and evaluation. - Improved Precision@3 from 66.7% to 83.3% with all-mpnet-base-v2 while maintaining 100% Recall@3; benchmarked multiple retrievers.	2026

EXPERIENCE

Neuberg Anand Academy of Laboratory Medicine <i>Laboratory Intern</i> - Observed diagnostic laboratory workflows across departments in a reference laboratory, building attention to process quality, documentation, and operational accuracy.	Aug 2022 - Sep 2022 Bengaluru, India
Apex Biotechnology Training and Research Institute <i>Bioinformatics Intern</i> - Completed short-term training in computational analysis, biological data interpretation, and structured technical reporting.	Nov 2021 Chennai, India

TECHNICAL SKILLS

Languages	Python, TypeScript, JavaScript, SQL, R
Backend	FastAPI, SQLAlchemy, PostgreSQL, REST APIs, Pydantic, pytest
AI/ML	scikit-learn, PyTorch, TensorFlow/Keras, NLP, RAG, LLMs, LangGraph, LangChain, model monitoring
Frontend	React, Next.js, Streamlit, Tailwind CSS, Docker, Git, GitHub, pandas, Plotly

ACHIEVEMENTS

GATE 2025: 92 percentile nationally in Data Science & AI | Kaggle Datasets Expert, global rank ~520 | 10+ Analytics Vidhya technical articles | Public PRs to LangGraph and Buildkite docs | IELTS Band 8.0