





RACHIT SINGHAL

 rachitsinghal2024@gmail.com  +44 7821836675  Manchester, United Kingdom  LinkedIn

PROFESSIONAL SUMMARY

MSc Artificial Intelligence graduate from the University of Manchester with hands-on experience in machine learning, reinforcement learning, and data engineering. Skilled in Python and modern ML frameworks, with a proven ability to design and deploy AI solutions that improve efficiency and accuracy. Experienced in applying advanced methods to real-world problems in biomedical text mining, financial analytics, and education technology. Strong collaborator who bridges technical depth with clear communication, making complex insights understandable and actionable for diverse stakeholders.

AREAS OF EXPERTISE

Technical Skills: Machine Learning, Generative AI, NLP, Computer Vision, Deep Learning, AI Strategy, Software Engineering, Data Analysis

Cloud Platforms: AWS, Microsoft Azure, Google Cloud

Languages & Frameworks: Python, PyTorch, SQL, java, JavaScript, Git, Docker

PROFESSIONAL EXPERIENCE

System Engineer

Infosys Limited

08/2022 – 07/2024

- Developed data-driven solutions that streamlined workflows and improved reporting efficiency, reducing report generation time by 30%.
- Designed and maintained interactive dashboards using Power BI and Python, improving data visibility and reducing manual reporting effort by 50%.
- Contributed to the integration of analytics and machine learning models, leading to a 25% improvement in data accuracy and a 20% reduction in processing time.

Data Scientist Intern

Magic Edtech

02/2022 – 03/2022

- Applied machine learning techniques to analyze large datasets and build predictive models for business insights.
- Collaborated with teams to deliver data insights that enabled a 10% increase in student engagement based on performance predictions.

EDUCATION

The University of Manchester – Manchester, UK

Sept 2024 – Present

MSc in Advanced Computer Science (Artificial Intelligence); Expecting Distinction

- Dissertation Project:** Designed an SCDCC-based framework for the Zeisel mouse brain cortex dataset and benchmarked across PBMC, mouse bladder, and worm neuron datasets, demonstrating robust and generalizable clustering with minimal biological priors.

MSIT– New Delhi, India

2018-2022

B.Tech. in Information Technology; First Division (CGPA: 8.3/10)

PROJECTS

Projects

- ReNewTrade:** Built a blockchain-based energy trading prototype using Gemini AI agents, enabling peer-to-business exchange with dynamic pricing and carbon credit incentives. Secured finalist recognition at a sustainability-focused AI hackathon
- Relation Extraction (NLP):** Designed a relation extraction pipeline using BERT embeddings and benchmarked XGBoost vs. GCN models on the re-DOCREd dataset, achieving competitive F1 scores and highlighting model trade-offs for long-form text classification
- Object Recognition:** Compared HOG/SIFT + SVM with CNNs on CIFAR-10, demonstrating 40% improvement in accuracy using deep learning. Highlighted CNN advantages for low-latency vision systems in robotics and edge devices.