Sanjana Mohan

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EDUCATION

New York University   New York, USA
Masters of Science in Data Science   Sep 2025 - Present

Indian Institute of Technology   Madras, India
Bachelor of Science in Data Science and Programming (Hybrid)   Jan 2022 – May 2025
> *CGPA*: 9.82/10
> *Relevant Subjects:* Machine Learning, Deep Learning, Mathematics, Business Analytics, Data Analytics
> *Achievement*: All India 3rd Rank in Diploma level

Narsee Monjee Institute of Management Studies   Mumbai, India
Bachelor of Science in Finance   Jul 2020 – May 2023
> *CGPA*: 3.91/4.0 (Dean's List)
> *Relevant Subjects:* Business Analytics, Financial Planning and Analysis,

WORK EXPERIENCE

Data Science Associate   **Feb 2024 – Mar 2025**
HDFC Bank (Datamatics)   Mumbai, India
- Implemented an end-to-end information retrieval and processing pipeline using LLMs, Retrieval Augmented Generation (RAG) to automate a repetitive task, involving anomaly detection in documents provided by customers. This automation saved employee time by approximately 80%.
- Built agentic graph-based pipelines using NLP techniques such as Optical Character Recognition (OCR), and conducted fine-tuning and prompt engineering of LLMs to optimize model performance. Gained practical experience coding with Langchain, Langgraph, Hugging face, Pydantic, Spacy, and OpenAI.
- Developed end-to-end web applications using Python and Flask, to automate internal processes and streamline access to predictive systems, and improve user experience while using the systems we designed. Collaborated with stakeholders, demonstrating communication and organization skills.

Marketing Analytics Intern   **Jun 2023 – Jan 2024**
HDFC Bank   Mumbai, India
- Designed dynamic data visualizations using Python's Dash and Power BI to track treasury inflows and outflows, supporting financial oversight. Worked with foreign exchange data from the treasury team at HDFC, demonstrating strong communication skills and the ability to work cross-functionally.
- Designed, implemented and tested an application automating daily monitoring procedures and reducing email exchanges, which is now used by 300+ users and logs 100+ cases daily, enhancing efficiency. Also created workflows using PowerAutomate to automate repetitive tasks and save time.
- Conducted exploratory data analysis (EDA) and built machine learning models on Non-Performing Assets (NPA) datasets, to predict future defaulters, which provided insights that the bank could use for risk reduction and business strategy. Used Python, Matplotlib, Pandas, Numpy, Scipy and Scikit-learn

PROJECTS

Software Engineering GenAI Project   **Sep 2024 - Dec 2024**
Collaborated with a team of 7, in a leadership role, to develop a dummy version of the University portal and integrated various solutions using AI. Utilized a RAG pipeline to generate lecture summaries from transcripts, improving the accessibility. Created a chatbot to answer student queries and enabled personalized practice questions generation based on student requirements, and created a fully functioning API. This project involved use of Python, Pytest for unit testing, Langchain, Flask, Rest API, SQL, JavaScript and VueJS, GitHub, honing skills in computer programming and UI design, and gaining experience in team-oriented coding practices.

Capstone Research Project – Mergers and Acquisitions in India   **May 2022 - Jun 2022**
Collected, cleaned and preprocessed merger and acquisitions data, and conducted statistical analysis using Python, identifying patterns utilizing statistical techniques. Evaluated the economic impact of mergers on stock prices using event study methodology, conducted ratio analysis of various financial metrics to study impact on operations and profitability, and performed regression and granger causality to quantify the influence of macroeconomic variables on merger activity. Authored a research paper detailing our literature review and findings and presented our insights to a panel of professors and industry experts, showcasing strong communication skills.

SKILLS

Programming Languages: Python, Flask, Java, Scripting language: Javascript, HTML, CSS, SQL, SQLite
Technical skills: Github, Jira, Linux, MS Office: Excel, Power BI, Powerpoint, PowerAutomate, Sharepoint
Other: Statistical Analysis, Financial Analysis, Business Analytics