Sai Rapeti

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TECHNICAL SKILLS

Programming & Analytics: Python, SQL, R, Java, SAS, PySpark, AMPL, A/B Testing, Statistical Modeling, Ada(exposure)

Visualization & Tools: Tableau, Power BI, Google Analytics, Excel, Flourish, DBeaver, BI tools, Data Visualization

Machine Learning: Classification, Regression, Clustering, K-Means, Neural Networks, Time Series Forecasting, LangChain

Data Science: NumPy, Pandas, Scikit-Learn, PyTorch, TensorFlow, Beautiful Soup, Selenium, Pydantic, Matplotlib, Seaborn **Databases & Warehousing:** MySQL, PostgreSQL, MongoDB, Snowflake, Microsoft SQL Server, Redshift, Data Models(Star/Snowflake)

Certifications: Goldman Sachs: Operations, JPMorgan Chase & Co. - Quantitative Research, McKinsey Forward, MATLAB

Data Concepts: EDA, ETL/ELT, Agile, Data Modelling, Data Architecture, KPI Dashboards, Metadata Management, Design Patterns Data & Cloud: AWS (EC2, S3, SageMaker, Athena), Azure, GitHub, MS Office 365(Excel, Word, PowerPoint, Publisher), Data Lake

WORK EXPERIENCE

Ouantitative Researcher

January 2025 - June 2025

New England Investment Consulting Group LLC, Boston, MA

- Developing and implementing algorithmic trading strategies to enhance returns and minimize market risks.
- Training large language models (LLMs) & curating specialized financial datasets to enhance model performance.
- Continuously explore, refine quantitative models to improve trading & investment strategies, keeping abreast of market trends.
- Collaborating with the risk management team to identify and mitigate financial risks in quantitative strategies.

Graduate Teaching Assistant

June 2025 - Present

Northeastern University, Boston, MA

- Facilitated workshops and labs on Python programming, AI, and deep learning (neural networks, backpropagation, optimization) for 200+ undergraduates, guiding them through real-world applications in image recognition and NLP.
- Designed and delivered curriculum, coding assignments, and case studies using TensorFlow and PyTorch, boosting hands-on student application of AI/ML techniques by 30%.
- Guided teams to follow a lightweight SDLC within Agile sprints; reviewed BI dashboards and data modeling choices for compliance-ready reporting.

Junior Data Analyst

September 2022 - August 2023

Code Facts Pvt Ltd, India

- Conducted predictive analytics and statistical modeling using pandas and scikit-learn to solve workforce planning challenges, performing regression analysis that optimized resource allocation strategies.
- Developed machine learning-based candidate scoring algorithms to streamline recruitment inefficiencies, implementing weighted scoring models that achieved 35% improvement in placement success rates.
- Built interactive dashboards and data visualizations in Tableau/Power BI by integrating multiple data sources, creating self-service analytics tools that improved stakeholder data accessibility by 40%.

Data Science Assistant

January 2021 - August 2022

Hochschule Kempten University of Applied Sciences, Germany

- Cleaned, joined, and documented multi-source datasets (CSV/SQL/APIs) in Python/SQL, cutting preprocessing time by 20%.
- Built and evaluated ML baselines (scikit-learn; AUC/F1/MAE) with solid CV/splits, improving baseline by 10% on hold-out.
- Turned analyses into reusable notebooks/pipelines and a lightweight Streamlit/Power BI dashboard tracking KPIs.
- Supported teaching and GDPR-compliant research ops: prepared lab notebooks/solutions.

EDUCATION

Master of Science in Data Analytics Engineering

September 2023- December 2025

Northeastern University, Boston, MA

Coursework: Data Mining, Data Management, Computation and Data Visualization, Story Telling, Natural Language Processing, Neural Networks and Deep Learning, Operations Research.

Bachelor of Technology in Computer Science and Engineering

July 2019- April 2023

Vellore Institute of Technology, India

Coursework: Data Warehousing and Data Mining, Foundations of Data Analytics, Probability and Statistics, Programming with Python, Artificial Intelligence, Database Management System, Problem Solving using Java, Data Structures and Algorithms, R.

ACADEMIC PROJECTS

- <u>Deep Learning Model for Land Use</u>: Trained and tuned a CNN on EuroSAT (10 classes, 64×64 RGB, 27k+ tiles); reported accuracy and per-class performance plots.
- Forecasting SPY with LSTMs: Prepared SPY windows, trained LSTM model, and compared predictions to actual with plots.
- Street Network Analysis: Built city street graphs, calculated centrality/length metrics and visualized spatial structure.