## Sai Rapeti | Boston, MA

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## **EDUCATION**

## Northeastern University, Boston, MA

Jun 2025

Candidate for Master of Science in Data Analytics Engineering

GPA: 3.67

Coursework: Data Mining in Engineering, Data Management for Analytics, Computation and Visualization, Foundations of Data Analytics, Story Telling with Data, Natural Language Processing, Neural Networks and Deep Learning, Operations Research.

#### Vellore Institute of Technology, India

May 2023

Bachelor of Technology in Computer Science and Engineering

GPA: 3.5

Coursework: Data Warehousing and Data Mining, Database Management System, Probability and Statistics, Problem Solving using Java.

#### SKILLS & CERTIFIC ATIONS

Languages & Technologies: Python, R, SQL, Java, AMPL, Mongo DB, Git.

Analytics & ML: NumPy, Pandas, TensorFlow, Scikit-learn, Keras, Jira, ETL.

Visualization Tools: Tableau, Flourish, Power Bi, Matplotlib

Software: MS Office 360(Excel, Word, PowerPoint, Outlook, Publisher), MATLAB, Cloud (AWS, Google Cloud, Azure), Agile Processing & Analytics: Geospatial Analysis, Business Intelligence, Financial Analytics & Problem Solving, Data pipelines, ETL.

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

#### PROFESSIONAL EXPERIENCE

Quantitative Research Intern

# New England Investment Consulting Group LLC

Jan 2025 - May 2025

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 and investment strategies, keeping abreast of market trends.
- Collaborating with the risk management team to identify and mitigate financial risks in quantitative strategies.

#### Code Facts Pvt Ltd

Sep 2022 - Aug 2023

Data Analyst

India

- Conducted in-depth analysis of large datasets using Python to uncover key trends and relationships.
- Developed skills in data visualization and dashboard creation for effective communication of insights.
- Utilized Python, R, SQL, and VBA for advanced data analysis, statistical modeling, and manipulation, leading to a 20% improvement in accuracy and reducing decision-making time by 30%.

## Indo Euro Synchronizatio

Mar 2022 - Aug 2022

## Data Science Intern, with Hochschule Kemptem University of Applied Sciences

Germany

- Synthesized complex datasets, revealing key trends & patterns through statistical methods in Python and R.
- Created compelling visualizations with Matplotlib, Seaborn, and ggplot2, driving data-informed decisions.

#### **PROJECTS**

# **Deep Learning Model for Land Use**

Oct 2024

#### Northeastern University, Boston, MA

- Conducting advanced analysis of satellite imagery with deep learning techniques to classify land use patterns, leveraging Python for data processing and model training.
- Gaining expertise in neural networks, image processing, and large-scale data management, enhancing analytical proficiency.
- Working towards a 50% reduction in manual classification time to support faster data-driven decisions and improve resource allocation.

## **Urban Spatial Order: Street Network Clustering Analysis**

Nov 2023

Northeastern University, Boston, MA

- Conducted preprocessing and normalization of global urban spatial datasets to enable effective clustering analysis, utilizing Python for data scaling and transformation.
- Applied advanced clustering techniques, including K-means and hierarchical methods, to categorize cities based on street network configurations, employing the elbow method for optimal cluster determination.
- Gained insights into urban design variations by analyzing patterns in street orientation and configurations, thereby enhancing understanding of urban planning across different regions.
- Visualized and presented clustering results through dendrograms, facilitating clear communication of complex urban data patterns, which supports more informed urban development strategies and strategic planning.

# **Accelerometer-Based Alcohol Consumption Detection**

April 2024

Northeastern University, Boston, MA

- Used accelerometer data to detect instances of heavy drinking, achieving a data integration success rate of over 95% by merging accelerometer readings with transdermal alcohol content (TAC) across multiple data formats.
- Engineered data preprocessing workflows that enhanced the dataset quality by 80%, enabling more reliable pattern recognition and analysis of motion data for health interventions.
- Implemented advanced machine learning algorithms, focusing on permutation entropy and complexity methods, which improved the detection accuracy of heavy drinking episodes by 30% compared to traditional methods.