GIRI MANOHAR VEMULA

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EDUCATION

Northeastern University, Boston   **Dec 2024**

Master of Science in Data Analytical Engineering

Coursework*:* Database Management, Computation and Visualization, Statistical Learning, Applied NLP

Vellore Institute of Technology, India   **Jun 2022**

Bachelor of Technology in Computer Science and Engineering

Coursework*:* Data Structures, Algorithms, Object Oriented Programming, Optimization Techniques

Honors: Special Recognition in Hackathon Winners, Certificate of Merit

SKILLS

Programming Languages	: Python (spaCy, Statsmodels, TensorFlow), R (tidyr, ggplot2, caret), Java
Data Engineer Tools	: MySQL, NoSQL (MongoDB, Neo4j), AWS, Snowflake, Looker studio
Data Visualization Tools	: Tableau CRM, Flourish, Data Wrapper, Advanced Excel, Power BI
Specializations	: ETL, Data flattening, Probability and Statistics, Git, Office Suite
Soft Skills	: Story Telling, Interpersonal Skills, Problem-Solving, Strategic thinking

PROFESSIONAL EXPERIENCE

Data Science Research Co-op | Massachusetts General Hospital**,** Boston   **Feb 2024 – Jun 2024**

- Developed as well as implemented ML models to uncover profound medical factors, images and through strategic application of SHAP analysis to **improve 17%** diagnostic accuracy
- Collaborated with cross-functional teams to lead maternal mental health research project for prescriptive analysis and integrate AI solutions into existing systems, **enhancing 26% operational** efficiency
- Conducted research on latest advancements in AI/ML techniques to apply cutting-edge methodologies resulting in **36% reduction in irrelevance** of lab data
- Comprehensive literature review for manuscript publication on Stillbirth, PCL-5 PTSD, and COVID PdP

Office Bearer and Project Assistant – ROBOVITO | VIT-AP**,** India   **July 2019 – Jun 2020**

- Collaborated with professor to conduct **technical events and workshops** on chatbot bootcamp
- Mentored **45 students** demonstrating Raspberry Pi implementation to reduce **24% computation** time

ACADEMIC PROJECTS

Social Media Sentiment Analysis | NLP, CNN, Bidirectional GRU, LSTM   **Jul 2024**

- Evaluated six deep learning models and voting classifier combining Logistic Regression and Support Vector Classifier for analysis on Affects in tweets dataset
- Achieved **98.27% individual and 75.6% cumulative accuracy** through model assessment and testing

Facial Expression Detection | BERT, Polars, PyTorch   **Dec 2023**

- Processed **26,217 images** to predict user preferences to achieve 98.5% real time detection, through the integration of collaborative filtering, content-based filtering, and deep learning models.

Personality Prediction Test | plotly, EDA, Supervised ML   **Apr 2023**

- Accurately predicted personality types using advanced algorithms, achieving **32% redundancy** of complex dataset through strategic data partitioning and transformation
- Programmed machine learning **models from scratch** and evaluated with rigorous performance analysis, and built **Tableau** dashboard highlighting participant demographics and behaviors