NAGA RAMYA GURRALA

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EDUCATION

Binghamton University, State University of New York, Thomas J. Watson College of Engineering and Applied Science
Master of Science in Computer Science (Specialization: Artificial Intelligence) *May 2025*

TECHNICAL SKILLS

Languages: Python, SQL, Java,C, JavaScript, Unix/Linux
Machine Learning & AI: TensorFlow, PyTorch, SpaCy, Scikit-learn, Keras, Deep Learning (CNN, RNN, LSTMs), NLP, Time Series Forecasting, Anomaly Detection, Hugging face, LLMs
Databases: MS SQL Server, PostgreSQL, NoSQL (MongoDB)
Data Science & Analytics: Pandas, NumPy, Tableau, Excel,BeautifulSoup,Matplotlib,Seaborn,Power BI, Feature Engineering, PredictiveAnalytics
Cloud & MLOps: AWS (EC2, S3, Lambda, RDS), Docker, Kubernetes, Model Deployment, A/B Testing
Software Development: HTML,CSS,Bootstrap,Object-Oriented Programming, Data Structures, Algorithms
Software and OS: Anaconda, Jupyter Notebook, Eclipse, Android Studio, VS Code

PROFESSIONAL EXPERIENCE

Global Health Impact Project, *Data Intern*| Binghamton,NewYork *October 2024 – December 2024*
- Constructed a data pipeline for drug regimen classification and manufacturer linking using Python and SQL, enabling more accurate global health impact assessments for 2-3 diseases.
- Automated malariadata collection and preprocessing with Python, accelerating workflow efficiency by 40% and enhancing dataset reliability.
- Conducted impact analysis using DALY calculations, enabling data-backed global health policy recommendations.

Golden Hills Capital India Private Limited , Data Scientist | Hyderabad, India *August 2022 – July 2023*
- Engineered machine learning models for crypto price forecasting and risk assessment, increased prediction accuracy from 50% to 80%, enabling traders to make more profitable decisions.
- Led the development of stock visualization dashboards using Highcharts & ChartJS, enabling real-time financial data analysis and improving trader decision-making speed by 35%.
- Refactored SQL queries to expedite real-time data retrieval, improving database efficiency and responsiveness.

Golden Hills Capital India Private Limited ,Data Science Intern| Hyderabad, India *June 2021 – August 2022*
- Designed a crypto insights platform, integrating real-time market data with interactive visualizations, elevating investor engagement by 25%.
- Developed a custom cryptocurrency screener, allowing users to filter assets based on technical indicators and risk factors, improving decision-making for 500+ traders.
- Integrated TradingView widgets and financial APIs to automate stock price tracking, reducing manual data retrieval by 40%.

Nativus IT Solutions,*Data Analyst Intern* |Visakhapatnam, India *March 2021 – June 2021*
- Cleaned and standardized 20 000+ finance records weekly using SQL, reducing data discrepancies by 30% and ensuring reliable inputs for analysis.
- Wrote complex SQL queries, views, and stored procedures to aggregate revenue, expense, and KPI metrics, enabling the finance team to generate accurate client reports.
- Automated daily ETL workflows with scheduled SQL jobs, cutting manual data-prep time by 40% and supporting same-day report delivery.

IIIT Hyderabad,*NLP Research Intern* | Hyderabad, India *January 2021 – April 2021*
- Processed 2,300 Telugu news articles consisting of 3 million tokens, employing Python scripts and regular expressions to eliminate approximately 40% of noisy data, resulting in 98% tokenization accuracy.
- Built an LSTM encoder–decoder summarizer with a pointer-generator and dual attention mechanisms, cutting summary repetition by ~20 % and effectively handling rare words.

PROJECT EXPERIENCE

Stock Insights: AI-Powered Forecasting & Sentiment Analysis Platform,*Final Project* *January 2025 – May 2025*
Tech Stack: Python, Machine Learning,NLP, Pandas, Flask,NumPy,Jupyter Notebook
- Created a Flask-based dashboard that ingests real-time stock prices via the Alpha Vantage API and scrapes social media sentiment from Twitter, Reddit, and 4chan, powering interactive Plotly charts (candlestick, OHLC, line, bar) for market exploration.
- Evaluated and compared four time-series models LSTM, ARIMA, and Linear Regression to generate 7 day price forecasts, selecting LSTM as the top performer.
- Assembled an NLP pipeline using VADER to classify ~67 % positive sentiment from scraped posts, and fused these sentiment scores with technical forecasts to produce actionable "Buy/Sell/Hold" recommendations.

Real-Time Reddit & 4chan Data Collection System, *Group Project* *August 2024 – December 2024*
Technologies:Python, PostgreSQL, NLP,Flask, Docker, TimescaleDB
- Spearheaded a team of three in designing and deploying a Docker-containerized data pipeline for real-time Reddit and 4chan data collection, processing 4.9M + 4chan posts and 345K+ Reddit submissions.
- Refined and optimized the PostgreSQL schema, reducing query response time by 30% for high-volume data analysis.
- Authored and Launched a Flask-based web interface, cutting manual analysis time by 60% through real-time sentiment and keyword tracking
- Devised and Implemented sentiment analysis & hate speech detection models with 85% accuracy, enabling content moderation insights.

Image-Caption-Generator-with-GUI, *Independent Project* *November 2023 – December 2023*
Tech Stack: Python, Keras, Pandas, NumPy,Jupyter Notebook
- Formulated an end-to-end image-captioning model in TensorFlow/Keras, combining a VGG16 CNN encoder (4096-dim features) with an LSTM decoder, trained on Flickr 8k (8 091 images, 40 455 captions) using a 60/20/20 split.
- Established a Python preprocessing pipeline (NLTK) for frequency-based word analysis, custom punctuation/number/single-character removal, tokenization, and sequence padding with startseq/endseq markers to standardize all captions.
- Devised a cross-platform desktop GUI using Tkinter and PIL to enable seamless image uploads and real-time caption generation, improving usability and stakeholder demonstrations.