

SAMHITA KOLLURI

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EDUCATION

Northeastern University | GPA: 3.84

Boston, MA

Masters in Data Analytics Engineering

September 2023 - December 2025

Coursework: Gen AI with LLM in Data Engineering, Large Language Model based Dialogue Agents, Natural Language Processing, Data Mining, Database Management, Foundations of Data Analytics, Computation & Visualization for Analytics.

Graduate Teaching Assistantship: IE 5374 - Storytelling for Data for Spring 2025

VNR Vignana Jyothi Institute of Engineering and Technology

Hyderabad, India

Bachelor of Technology in Computer Science and Engineering

August 2017 - July 2021

SKILLS

Programming Skills: Python (PyTorch, TensorFlow, Scikit-learn, Pandas, Numpy, NLTK, LangChain), SQL, R.

Tools: Tableau, Microsoft Power BI, Flourish, Informatica PowerCenter, IBM Tivoli, Snowflake, Jenkins, JIRA, DBT, Databricks.

AI Concepts: LLM (Fine-Tuning, LangChain, OpenAI APIs), Multi-Agents, Prompt Engineering, Multilayer Perceptron, CNN, LSTM, Pre-trained Transformers, Regression, Classification, Clustering, OpenCV, Reinforcement Learning, BERT, GAN.

Databases & Platforms: Vector Databases, Snowflake, Databricks Community, GitHub.

WORK EXPERIENCE

Humanitarians AI

Boston, MA

AI Research and Engineer – *Stellis Labs*

January 2025 - Present

- Developing multi-agent AI systems under the guidance of *Prof. Nik Brown* for autonomous decision-making.
- Building memory layers, observability tools, and API integrations to enhance agent intelligence.
- Deploying and fine-tuning LLM-powered agents using LangChain, OpenAI APIs, and vector databases.

Northeastern University

Boston, MA

Graduate Teaching Assistant

December 2024 - Present

- Coordinate course materials and schedules for IE 5374 Storytelling with Data, Applied Gen AI under the guidance of *Prof. Mohammad Dehghani*, ensuring efficient class operations and timely resource dissemination.
- Design and conduct interactive lab sessions to enhance student proficiency in data analysis, dynamic visualizations.
- Facilitate student learning by assisting with tools such as Power BI, and Excel for data wrangling and interactive dashboards.

Cognizant Technology Solutions

India

Senior Data Engineer - *Artificial Intelligence and Analytics*

August 2022 - July 2023

- Designed and developed Informatica code, SQL queries, and mappings, improving system performance by 25%.
- Streamlined the code migration process by implementing a backup system for critical data, reducing deployment time by 40%.
- Conducted thorough testing of DBT models using built-in and custom tests, ensuring data accuracy and reliability.
- Directed Tivoli job development and led issue management using Agile and JIRA, ensuring timely, high-quality delivery.

ETL Developer - *Artificial Intelligence and Analytics*

August 2021 - August 2022

- Improved testing efficiency by 15% through workflows and unit testing.
- Optimized ETL processes using Informatica PowerCenter mappings, exceeding client expectations with a 27% boost in data transformation efficiency, 25% enhancement in documentation accuracy, and 20% error reduction.
- Transformed multiple files from SQL to Py Spark for a client to develop a model and debugged on the Databricks community.

Data Engineer - *Artificial Intelligence and Analytics*

March 2021 - July 2021

- Spearheaded the team in conceptualizing and executing the Spring Boot MVC project for efficient SQL query generation.
- Streamlined setup and prioritized seamless data integration, aligning with business needs before pitching to stakeholders.

APPLIED PROJECTS

GitHub

SEMANTIC: Multi-class Article News-Text Identification and Categorization | Northeastern University

November 2024

- Developed a multi-class classification system "*SEMANTIC*" to identify and categorize news articles, utilizing an IAB-labelled dataset from Hugging Face for fine-grained category detection in imbalanced data scenarios.
- Applied state-of-the-art transformer models via Hugging Face Transformers, fine-tuning on GPU to maximize efficiency.
- Enhanced contextual embedding for superior handling of complex, multi-class text categorization.

SysTune: LLM-Based Hardware-Software Parameter Optimization | Northeastern University

October 2024

- Developed an autotuning system for HPC using OpenAI's GPT-4, optimizing hardware and software iteratively.
- Enhanced parameter tuning accuracy by 30% through advanced parsing techniques and iterative adjustments, resulting in significantly improved resource utilization and throughput for HPC applications.
- Designed an Option Evaluator to parse LLM responses, effectively extracting new parameter values for further evaluation.

RESEARCH EXPERIENCE

Published Patent and Paper [Link](#)

December 2021

An Artificial Intelligence and Internet of Things based Integrated Approach for COVID-19 Prevention, App. Num: 202141054101

Research Intern - Bennett University [Github](#)

March 2020 - June 2020

Managed a cross-functional team throughout the 'Automated Sign Language Recognition' project's lifecycle, fostering effective collaboration and developing a combinatorial neural networks model resulting in 98.56% validation accuracy.