Ganesha Srinivas Damaraju

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Education

University of Southern California — Los Angeles, California
Master of Science in Computer Science — January 2024-December 2025
Relevant Coursework: Foundations of Artificial Intelligence, Machine Learning, Analysis of Algorithms, Information Retrieval and Web Search Engines

Amrita Vishwa Vidyapeetham — Kerala, India
Bachelor of Technology in Computer Science and Engineering (Artificial Intelligence) — August 2019-May 2023
Relevant Coursework: Data Structures, Design and Analysis of Algorithms, Mathematics for High Dimensional Data, Operating Systems, Object Oriented Design and Programming

Skills

- **Programming Languages:** Java, JavaScript, Python, Go, R
- **Frameworks & Libraries:** Node.js, AngularJS, Pandas, CUDA, NumPy, Tensorflow, PyTorch, Keras, OpenCV, Flask, Streamlit
- **General:** Machine Learning, Deep Learning, Natural Language Processing, Data Analysis, Data Visualization, Computer Vision, Large Language Models, Image Processing
- **Cloud Platforms and Deployment:** Google Cloud Platform (GCP), Amazon Web Services (AWS), Docker, Kubernetes, Git, CI/CD Pipelines
- **Database Management:** MongoDB, MySQL, SQLite, Hadoop, PostgreSQL

Work Experience

99 Yards — New York City, New York
Machine Learning Intern — October 2024-Present
- Achieved 92% accuracy in pattern and color recognition for cross-modal fashion applications by developing an LLM-powered feature extraction pipeline leveraging ResNet and Vision Transformer models.
- Designed and deployed Flask APIs integrated with FAISS, streamlining similarity searches and improving system scalability for large datasets.
- Enhanced image classification capabilities by fine-tuning large language models (LLMs) and collaborating with designers and developers to align technical solutions with business needs.

SIRTOGO — Telangana, India
Machine Learning Intern — December 2022-March 2023
- Worked closely with cross-functional teams to design and deploy a personality trait prediction model, presenting findings to stakeholders and ensuring seamless integration into the mock interview program.
- Engineered a predictive model refining precision and reliability of personality assessments. Communicated findings and technical details, resulting in a 30% increase in accuracy
- Presented technical insights to college administrators, driving adoption of the model for mock interviews, benefiting over 50 students by enhancing preparation through tailored feedback.

Projects

SQLGenie: Transforming Natural Language into SQL with Transformers | *Python, PyTorch, Streamlit, RAG*
- Developed a text-to-SQL solution by fine-tuning advanced LLMs (T5, BART, and LLaMA2) using Hugging Face's ecosystem, achieving 85% logical form accuracy on the WikiSQL dataset.
- Enhanced query generation with Retrieval-Augmented Generation (RAG) techniques and deployed the system as an interactive web application using Streamlit.

PlantHealthAI | *Python, Tensorflow, Convolutional Neural Networks (CNN), OpenCV, YOLO*
- Led a team to optimize diagnostic accuracy by 15\% by developing a binary disease classification model for Ground Nut Plants using advanced machine learning techniques.
- Identified challenges in plant disease diagnostics and implemented Leaf Segmentation using ResNetUnet, improving prediction precision by 20% and contributing to efficient field operations.
- Received a funding of 3 million from the Science and Engineering Research Board for further research and development
- This work has been published in the IEEE Xplore Digital Library (Link to the publication)

Achievements

Winner of HackHarvard 2021: Back From Scratch
- Built a web application named TGMP Tuberculosis Detector, revising tuberculosis detection accuracy by 20%
- Presented the TGMP Tuberculosis Detector project to a panel of judges, articulating technical details and securing ”The Best Medical Hack” award