Kavya Sridhar

Master's student in Data Science with a strong foundation in Machine Learning and LLMs. Passionate about leveraging data-driven solutions to drive meaningful impact.

Education

Master of Science, Data Science, University of California San Diego (GPA 3.88/4.0)

2024-2026

B.E. Computer Science and Engineering, CEG Anna University (CGPA 9.08/10)

2019-2023

Relevant Coursework: Scalable Data Systems, Database Management Systems, Data Science Programming, Algorithms for Data Science, Machine Learning, Deep Learning, Big Data Analytics, Social Network Analysis, Probability and Statistics, Statistical Models, Linear Algebra.

Experience _____

Société Générale Global Solution Centre

July 2023 - August 2024

Software Engineer

Chennai, Tamil Nadu

- Optimized CI/CD pipelines in Palantir Foundry, reducing query execution time by **20%** and accelerating decision-making for 4 business units.
- Developed interactive dashboards in Palantir Foundry Workshop, eliminating 100% manual data analysis time and improving stakeholders' operational efficiency by 50%.
- Enhanced data storage and workflow efficiency for new business units leveraging Scala, Spark, Amazon S3, and Oozie.

Projects

Snap&Know, A Visual Product Discovery Assistant | RAG, LangChain, LangGraph & 🗹

June 2025

- Developed a visual product discovery assistant integrating a vision pipeline with **RAG** over product reviews and targeted price/metadata enrichment, powered by GROQ-hosted **LLaMA 3-70B**.
- Leveraged LangChain and LangGraph to wrap core capabilities, route queries to the appropriate tools based on user intent, and orchestrate stateful multi-step workflows that preserve context across interactions.

Indian Sign Language (ISL) Interpreter | Tensorflow, Keras, OpenCV, & 🗹

May 2022

• Built an ISL recognition system using CNNs, achieving **98.49**% accuracy on a custom dataset, enhancing accessibility for sign language users.

Offline Signature Verification | Tensorflow, Keras, OpenCV & 🗹

January 2022

• Designed a Siamese Neural Network with twin CNNs for offline signature verification, improving the authentication accuracy to **91.8%** on benchmark datasets.

Publications

D. Ramesh, I. Sriram, **K. Sridhar**, S. D. Dunston, and M. A. R. V, "*Understanding DeepFool Adversarial Attack and Defense with Skater Interpretations*", 2023 International Conference on Wireless Communications Signal Processing and Networking (WiSPNET), Chennai, India, 2023, pp. 1-5. 8

- Improved the robustness of the ResNet50 architecture against adversarial attacks by 43% through adversarial training.
- Enhanced the quantification of performance metrics by visually analyzing the impact of the attacks using Skater's visual interpretation tools.

Certifications _

Generative AI with Large Language Models | DeepLearning.AI & AWS (Coursera) € ☑

August 2025

• The course covered LLM fundamentals, lifecycle, prompt engineering, fine-tuning, and deployment using AWS and Hugging Face. It included an in-depth study of transformer architectures, types of transformers (BERT, GPT), pretraining methods, optimisation techniques, evaluation, and real-world deployment practices.

Skills

Programming Languages: Python, C, C++

ML Frameworks: NumPy, Pandas, Matplotlib, Scikit-learn, PyTorch, Keras, Hugging Face, LangChain, LangGraph

Data Engineering & Databases: MySQL, PostgreSQL, Neo4J, Spark, Hadoop, Amazon S3.

Concepts: Machine Learning, Natural Language Processing (NLP), Computer Vision, Large Language Model.