MADHU SIDDHARTH SUTHAGAR

STUDENT

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EDUCATION

MASTERS IN DATA SCIENCE
ILLINOIS INSTITUTE OF TECHNOLOGY GPA - 4.0
2024 - Present

BACHELOR IN INFORMATION TECHNOLOGY
Coimbatore Institute of Technology GPA - 3.66
2020 - 2024

PROJECTS

GALAXY EXPLORER (ILLINOIS INSTITUTE OF TECHNOLOGY) **May 2025 - July 2025**
Developed a star-gazing app showing visible stars based on location, direction, and viewing angle. Created a project to visualize historical Earth events from distant stars' perspectives using light-travel time. Integrated astronomical calculations and geospatial data for accurate, interactive sky-time simulations.

Alzheimer's Prediction (Illinois Institute of Technology) **January 2025 - April 2025**
Initiated an ML pipeline leveraging transfer learning with ResNet to classify Alzheimer's stages from MRI and GANs to generate personalized images predicting future stages, utilizing deep convolutional neural networks and optimizing Binary Cross Entropy loss (0.38 for discriminator, 3.52 for generator).

Traffic Analysis (Coimbatore Institute of Technology) **January 2024 - April 2024**
Developed a 5-minute interval traffic predictor for San Francisco with a Random Forest Regressor on the Caltrans dataset (R^2: 0.87). Integrated web scraping for real-time news updates and implemented a custom-weighted Dijkstra algorithm for optimal route calculation, visualized using Folium maps.

CERTIFICATIONS

IBM MACHINE LEARNING SPECIALIST
AUGUST 05, 2025
AWS CERTIFIED CLOUD PRACTITIONER
JUNE 9, 2025
IBM DATA SCIENCE PROFESSIONAL
April 05, 2023
GOOGLE DATA ANALYTICS
May 12, 2022

RELEVANT SKILLS

Packages - Pandas, Numpy, PyTorch, Tensorflow, Plotly, Dash, Seaborn, Matplotlib, Scikit learn, nltk, keras
Programming Languages - Python, R, C, C++, Java, SQL
Tools - Google Cloud Platform, PostgreSQL, Tableau, IBM Watson Studio, Excel

INTERNSHIP EXPERIENCE

AI INTERN
Smartknower
Februrary 2021 - March 2021

- Gained foundational knowledge in Artificial Neural Networks (ANNs), Convolutional Neural Networks (CNNs), and image processing techniques.
- Used transfer learning on VGG19 model with ImageNet data for a major project, gaining experience in deep learning and model improvement.

DATABASE INTERN
Brillersys
July 2022 - August 2022

- Developed and implemented complex SQL concepts, including triggers, stored procedures, and functions.
- Collaborated with a team to architect and create a professional-grade university database using PostgreSQL, ensuring optimized performance and data integrity.