SRI VATHSAN M M

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Education

Amrita Vishwa Vidyapeetham, Chennai **October 2022 – May 2026**
Bachelor of Technology in Computer Science and Engineering (Artificial Intelligence) - 8.58/10.0 *Chennai, Tamil Nadu*

Indian Institute of Technology, Madras **May 2023 – December 2027**
Bachelor of Science in Data Science (Online Degree) GPA: 7.5/10.0 *Chennai, Tamil Nadu*

Vellamal Vidyalaya, Annupanadi **June 2021 – July 2022**
Higher Secondary School(XII) - 78% *Madurai, Tamil Nadu*

Projects

Pali-to-English Translation | *TensorFlow, Python, LSTM, Transformer* **November 2024**
- Engineered and evaluated LSTM and Transformer models for translating 150,000 Pali-English sentence pairs.
- Delivered 97.65% accuracy with Transformer models, significantly outperforming LSTM (loss: 0.2719 vs. 0.7190).
- Enhanced translation accuracy by over 15% through rigorous model optimization, surpassing baseline LSTM performance.

Bayesian Meta-Learning for Banknote Authentication | *PyTorch, Bayesian methods* **August 2024**
- Deployed Bayesian meta-learning in PyTorch to classify banknotes as authentic or forged.
- Reduced misclassification rates by 30% on the Banknote Authentication dataset, improving classification algorithms.
- Harnessed probabilistic reasoning and deep learning techniques to boost performance.

Ultrasound Nerve Segmentation Using UNet Architecture | *TensorFlow, UNet* **August 2024**
- Optimized a UNet-based model for ultrasound nerve segmentation, achieving 92.5% accuracy.

Advancements in Human Emotion Detection | *TensorFlow, CNN-LSTM, EfficientNet* **August 2024**
- Bench marked ResNet, CNN-LSTM, and EfficientNet, achieving 85.71% accuracy with ResNet.
- Boosted emotion detection by 20% using CNN-LSTM for spatiotemporal features.
- Used transfer learning to enhance performance in low-resource settings, increasing accuracy by 10% on limited datasets.

Growth Analysis | *TensorFlow, Numpy, Pandas* **December 2023**
- Built machine learning models to predict GDP growth and population density with 99% accuracy.
- Analyzed 220+ features and 3,000+ records to extract actionable insights.
- Supported policy decisions impacting sectors contributing to 70% of regional GDP.

Crop Analysis, Prediction, and Pest Detection System | *Scikit, TensorFlow* **August 2023**
- Designed and implemented models for crop prediction and pest detection across 9 classes, achieving 95% accuracy.
- Amplified prediction accuracy by 20% with feature-rich datasets.
- Accelerated agricultural planning by 30% and improved pest detection accuracy by 25%, benefiting 500+ farmers.

Technical Skills

Languages: Java (Basic), Python, C, SQL, HTML, CSS, Javascript, ReactJS
Machine Learning Packages: TensorFlow, PyTorch, Scikit-Learn, NumPy, Pandas
Developer Tools: VS Code, Google Colab, MySQL, IntelliJ
Soft Skills: Leadership, Problem Solving, Public Communication, Event Management

Achievements

Smart India Hackathon 2023
Govt. Of India
- Qualified University Level Hackathon.
- *Led the creation of a water footprint tool in a web app with 20 questions to track water use, helping users become more aware and engaged.*

Leadership

Office Bearer - Neuronix AI Club July 2024 - current
Amrita Vishwa Vidyapeetham

Certifications

Problem Solving using C Programming - NPTEL April 2023
The Joy of Computing using Python - NPTEL April 2024
Computer Graphics September 2024
Computer Vision - NPTEL October 2024