NAREN SUNDAR L

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Education

B.Tech in Computer Science and Engineering (Artificial Intelligence) **CGPA: 8.48**
Amrita School of Engineering, Amrita Vishwa Vidyapeetham, Coimbatore *2023-2027*

AISSCE/ Grade 12) **88.4%**
The Vijay Millennium Senior Secondary School CBSE, Dharmapuri *2022-2023*

AISSE/ Grade 10) **91.8%**
The Vijay Millennium Senior Secondary School CBSE, Dharmapuri *2020-2021*

Technical Skills

Programming Languages: Python, C, C++, Java, JavaScript
Core CS Concepts: Data Structures & Algorithms, Object-Oriented Programming, Operating Systems, Computer Networks, Database Management Systems, Software Principles
Frameworks & Libraries: React.js, Next.js, Node.js, Express, Flutter, NumPy, Pandas, SciKit-learn, TensorFlow, PyTorch, Hugging Face Transformers
Databases: MySQL, MongoDB, PostgreSQL
Cloud & Tools: Microsoft Azure, Google Cloud Platform (Compute, Storage, APIs), Git, Docker

Projects

CodeProctor – Full Stack Code Evaluation System | *Next.js, TypeScript, PostgreSQL, Docker* **GitHub**

- **Launched a scalable code evaluation platform** supporting **250+ active users** across **8 departmental sections**, by implementing a robust **RBAC system** and problem management.
- **Improved execution reliability and response latency by 33%**, verified through judge performance logs, by architecting a **Docker-based** isolated judge and **Next.js 15** frontend with **SSR optimizations**.
- **Drove department-level adoption** across **4 academic departments** and **12 courses**, by designing efficient workflows that reduced **manual grading time by 40%** for **6+ active contests**.

ABSA using BERT with LSTM | *PyTorch, Hugging Face Transformers, BERT-base, LSTM, Scikit-learn* **GitHub**

- **Engineered an end-to-end Aspect-Based Sentiment Analysis (ABSA) pipeline** leveraging **BERT-base**, **BERT + LSTM**, and **BERT + Custom Attention** architectures to perform fine-grained sentiment classification at the **aspect level** on real-world review data.
- **Processed and benchmarked SemEval-2014 ATSA datasets**, supporting 4-class sentiment classification and standardizing sentence–aspect representations for model training.
- **Implemented a custom data loading and preprocessing framework** to handle sentence–aspect pairs, enforce deterministic data splits, and ensure

Statistical Load Forecasting System | *Python, SARIMA, Prophet, Pandas, NumPy* **GitHub**

- **Conducted a comparative study of statistical load forecasting models** by designing and evaluating **SARIMA** and **Facebook Prophet** on large-scale **hourly electricity consumption data (PJM Interconnection)**, addressing real-world grid planning and energy management challenges.
- **Engineered a robust time-series preprocessing pipeline** involving missing-value imputation, **Z-score and IQR-based outlier detection**, and seasonality preservation to ensure model stability on non-stationary, real-world power system data.
- **Benchmarked forecasting accuracy and scalability** using **MAE, MSE, RMSE, and MAPE**, demonstrating Prophet's superior accuracy and computational efficiency over SARIMA, and providing actionable insights for **model selection in production-grade load forecasting systems**.

Certifications

- **The Complete Web Development Bootcamp (Udemy 2025)**
  Skills Gained: HTML, CSS, JavaScript, Node.js, Express.js, MongoDB, React, PostgreSQL
  Link: https://www.udemy.com/certificate/UC-7ef6e36b-eb48-440d-a263-3b2587446310/

Publications

- **Statistical Load Forecasting in Power Systems: A Comparative Study of SARIMA and Prophet Models.**
  CE2CT-2025 IEEE, Graphic Era Hill University.
  DOI: https://doi.org/10.1109/ce2ct64011.2025.10941664