

# Maithreyan D

Tamil Nadu, India

Maithreyan - Portfolio — [maithreyan2006@gmail.com](mailto:maithreyan2006@gmail.com) — [linkedin.com/in/maithreyan-d](https://www.linkedin.com/in/maithreyan-d) — [github.com/maithreyan12](https://github.com/maithreyan12)

## PROFILE

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3rd-year B.Tech Information Technology student with strong foundations in **Machine Learning, NLP, and Computer Vision**. Experienced in building end-to-end ML pipelines and scalable applications with measurable performance improvements. Demonstrates strong research orientation, analytical thinking, and interest in real-world AI systems.

## EDUCATION

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### B.Tech in Information Technology

2023 – 2027

Anna University

Relevant Coursework: Machine Learning, Data Structures & Algorithms, DBMS, Operating Systems

## TECHNICAL SKILLS

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**Languages:** Python, Java, JavaScript

**ML & AI:** Machine Learning, NLP, Computer Vision, TensorFlow, Scikit-learn

**Development:** MERN Stack, REST APIs, Flutter

**Tools:** Git, GitHub, VS Code

## PROJECTS

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### Sentiment Analysis System (NLP)

- Built a text classification model using TF-IDF and Logistic Regression achieving **89%+ accuracy**
- Designed preprocessing pipeline (tokenization, stopword removal, vectorization) improving performance by **18%**
- Evaluated using precision, recall, and F1-score for robustness on imbalanced datasets

### Fake News Detection using ML & NLP

- Developed models using Naive Bayes and Random Forest achieving **92% accuracy**
- Engineered linguistic and semantic features to improve misinformation detection
- Reduced false positives by **20%** through feature tuning and cross-validation

### Traffic Sign Detection (CNN, Computer Vision)

- Implemented a CNN model achieving **94% classification accuracy**
- Applied data augmentation improving generalization by **25%**
- Optimized inference time for near real-time predictions

### Textile Management App (Flutter)

- Developed a cross-platform app improving inventory efficiency by **30%**
- Integrated REST APIs for real-time data synchronization
- Collaborated using Git in an agile team environment

### Full Stack Web Applications (MERN Stack)

- Built scalable applications using MongoDB, Express.js, React, Node.js
- Designed RESTful APIs with optimized database queries
- Improved response time by **35%**

## EXPERIENCE

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### Self-Directed AI/ML Research and Development

- Designed and implemented ML models for classification and pattern recognition tasks
- Conducted hyperparameter tuning, model comparison, and experimental evaluations

- Documented results for reproducibility and performance benchmarking

## ACHIEVEMENTS

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- Solved **300+** Data Structures & Algorithms problems
- Built and deployed **5+** end-to-end ML and full-stack projects
- Strong foundation in algorithmic thinking and statistical modeling

## ADDITIONAL

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Interests: Applied AI Research, Scalable ML Systems, Real-world Data Problems  
Actively exploring research papers and implementing advanced ML techniques