Aswin Arunkumar

Objective

Seeking opportunities in Artificial Intelligence and Machine Learning where I can apply my technical knowledge, gain valuable hands-on experience, and contribute to the development of innovative projects.

Education

B.Tech. CSE in Artificial Intelligence and Machine Learning
Vellore Institute of Technology 2027

Senior Secondary Exam (CBSE)
Christ Nagar Higher Secondary School 2023

Experience

Intern – Machine Learning May – July 2025
IBIL Solutions, Technopark, Trivandrum

- Implemented web scraping for customer reviews and performed sentiment analysis using VADER to extract actionable insights.
- Developed sales time-series forecasting models to predict future demand and trends from historical data.
- Built a news summarization pipeline to generate concise summaries from long-form articles using NLP techniques.

Projects

Open Source Contribution – Linfa (Rust ML Library)

- Contributed to the Linfa open-source Rust ML library by implementing Least Angle Regression (LARS) improving support for sparse, high-dimensional linear models.
- Wrote tests and documentation to ensure correctness and maintainability of the new algorithm.
- Followed open-source best practices: modular design, test coverage, and iterative improvements through peer code review.

Iris Dataset Classification with Neural Network

- Designed a simple and effective ML pipeline for a classification task and integrated it into CoreML, to leverage Apple's neural- engine.
- Developed a neural network to classify Iris species with strong accuracy.
- Converted the trained model into CoreML format to run the model natively on Apple's Neural Engine for efficient on-device inference, optimizing model deployment for mobile and edge applications.

Image Generation Web App

- Designed and developed a web application that enables users to generate high-quality images from prompts using the Stable Diffusion model.
- Implemented a Flask-based backend to handle user requests, manage the Stable Diffusion model loading and inference pipeline.
- Currently working on containerizing the application using Docker to enable easy deployment, scalability, and environment consistency across different platforms.

Technical Skills

Languages: Java, Python, C/C++, SQL, JavaScript, Rust, Shell
Frameworks: React, Node.js, Flask
Tools: Git, Docker, TensorBoard, VS Code
Libraries: Scikit-learn, TensorFlow, Matplotlib

Contact

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