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Summary

Computer Science undergraduate specializing in Artificial Intelligence and Machine Learning with hands-on experience building and deploying production-grade mobile and machine learning systems. Independent developer of a Flutter application serving over 4,000 users. Strong in full-stack development, cloud-backed architectures, performance optimization, and system design.

Education

Vellore Institute of Technology (VIT), Chennai

B.Tech in Computer Science and Engineering (AI and ML)

Aug 2023 – May 2027

CGPA: 8.78 / 10

Experience

Independent Software Developer

Jan 2024 – Present

VIT Verse – Student Productivity Mobile Application

Live

- Designed, developed, deployed, and maintained a production Flutter mobile application used by over 4,000 active users.
- Owned the complete software development lifecycle including system design, UI/UX, frontend development, backend integration, authentication, deployment, monitoring, and iteration.
- Implemented an offline-first architecture using Firebase, Supabase, SQLite, and REST APIs to ensure reliability under low or unstable network conditions.
- Integrated cloud services for real-time data synchronization, push notifications, and secure media storage while optimizing performance through caching and lazy loading.

Projects

Leukemia Diagnosis System

GitHub

- Developed an end-to-end deep learning pipeline for leukemia detection using EfficientNetV2 trained on 3,256 labeled medical images.
- Applied transfer learning techniques to improve model convergence and generalization on limited medical datasets.
- Achieved 98.93 percent classification accuracy and evaluated model performance using precision, recall, and confusion matrices.
- Implemented Grad-CAM visualizations to provide explainable predictions and improve clinical interpretability.

Himalayan Expedition Success Prediction

GitHub

- Built machine learning pipelines on over 89,000 historical expedition records to predict climb success outcomes.
- Performed data cleaning, feature engineering, and exploratory data analysis to identify key success factors.
- Trained and evaluated ensemble models including random forest and gradient-based approaches.
- Deployed an interactive Streamlit dashboard for real-time prediction and result visualization.

CVLA – Complex Visualizer and Linear Algebra Platform

Live

- Designed an interactive platform for visualizing complex-valued functions and linear algebra transformations in real time.
- Implemented dynamic plots for complex planes, vector spaces, eigenvectors, and matrix transformations.
- Used NumPy, SciPy, and Plotly to ensure accurate numerical computation and smooth visual rendering.
- Improved conceptual understanding of abstract mathematics through intuitive visual representations.

Technical Skills

Languages: C++, Java, Python, JavaScript, Dart

Frameworks: Flutter, React, TensorFlow, scikit-learn, Streamlit

Cloud and Backend: Firebase, Supabase, Google Cloud Storage, REST APIs, SQL, SQLite

Core Areas: Mobile Development, Full-Stack Systems, Machine Learning, Deep Learning, Explainable AI, Data Structures, System Design

Activities

Built and shipped rapid prototypes and minimum viable products across 20+ hackathons, gaining experience in rapid iteration, problem solving, and collaborative development under tight deadlines.