

ABHINAV MARLINGAPLAR

Pune, India

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Education

Indian Institute of Information Technology, Kottayam

Bachelor of Technology in Computer Science

Aug 2023 – present

CGPA - 8.27 / 10

S.N.B.P International School, Manjri, Pune

Grade 12

July 2021 – May 2023

Percentage - 90.40 Percent

Pawar Public School, Hadapsar, Pune

Grade 10

May 2021

Percentage - 97.20 Percent

Relevant Coursework

- Data Structures
- Operating Systems
- Computer Networks
- Database Management
- Calculus
- Statistics and Probability
- Software Architecture
- Linear Algebra

Projects

NLP-Studio - Multi NLP Service Platform | *MERN Stack, Supabase Vector DB, Groq API, JWT* **December 2025**

- Developed a full-stack NLP platform using MongoDB, Express.js, React.js, and Node.js (MERN) with JWT-based authentication (access and refresh tokens), enabling secure multi-user access to multiple AI-powered text services.
- Implemented LLM-driven NLP features including a Retrieval-Augmented Generation (RAG) chatbot, text paraphrasing, and text analytics by integrating Xenova embeddings, Supabase Vector Database, and Groq LLM APIs.
- Designed and optimized the end-to-end RAG pipeline covering document ingestion, embedding generation, vector similarity search, and context-aware response generation, and deployed the system using Vercel (frontend) and Render (backend) with production-ready configuration.
- **Live Demo:** View Application

BlogZone - AI-Powered Blog Platform | *MERN Stack, Google Gemini API, JWT, REST APIs, Vercel* **August 2025**

- Built a full-stack blogging platform using MongoDB, Express.js, React.js, and Node.js (MERN), allowing administrators to manage blog content and moderate user comments through a secure admin interface.
- Integrated the Google Gemini API to enable AI-assisted blog draft generation from natural language prompts, improving content creation efficiency for administrators.
- Implemented JWT-based authentication and role-based access control, built RESTful backend APIs, and deployed a production-ready frontend on Vercel with clean client-server separation.
- **Live Demo:** View Application

House Price Prediction | *Python, Pandas, Scikit-learn, Matplotlib, Seaborn, XGBoost*

June 2025

- Developed a high-accuracy House Price Prediction model using XGBoost Regressor tuned using RandomizedSearchCV, achieving an R-squared of 0.9204 on the test set.
- Conducted comprehensive data preprocessing, ordinal encoding, log transformations and feature engineering to optimize dataset quality and model performance.
- Validated model generalization by submitting predictions to a Kaggle competition securing a score of 0.13469 (RMSE), demonstrating strong real-world predictive capability.

Technical Skills

Programming Languages: C++, Python, JavaScript

Backend & Databases: Node.js, Express.js, MongoDB, Supabase (Vector DB)

Frontend & Web Technologies: React.js, HTML, CSS

AI / ML & Data Science: Scikit-learn, NumPy, Pandas, Matplotlib

Developer Tools & Platforms: Git, GitHub, Postman (API Testing), Google Colab, VS Code, Vercel

Extracurricular

- **Leetcode** - Completed 300+ DSA problems on Leetcode.
- **Competitive Programming** - Achieved a top Leetcode Contest Rating of 1659.