

Nathan Mendis

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EDUCATION

P.E.S. Modern College of Engineering

B.E. Artificial Intelligence & Machine Learning (GPA: 8.1)

Pune — 2022–2026

Loyola High School & Junior College

X: 84.2%, XII: 67%

Pune — 2010–2022

TECHNICAL SKILLS

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

Backend: Django, Django REST Framework, Flask

Frontend: ReactJS, HTML, CSS

Databases: PostgreSQL, MongoDB, SQLite

AI/ML/NLP: LangGraph, LangChain, Transformers, scikit-learn, pandas, spaCy

Cloud: Docker, Azure, AWS

EXPERIENCE

R&D Intern

PureID Pvt. Ltd.

Jan 2025 – Oct 2025

- Developed and deployed a Django-based customer requirements discovery platform from scratch with role-based authentication, admin dashboard, PostgreSQL integration, and Azure deployment.

Treasurer, CODE Club (AI-ML) — Member, CSI

P.E.S. Modern College of Engineering

2023 – Apr 2025

- Built backend features for a Django quiz platform used by 100+ students with certificate generation and event management.
- Organized technical seminars on web development, IBM Cloud, and computer graphics.

PROJECTS

Harvey – AI-Powered HR Agent

Agentic AI, RAG, LangGraph, LLMs | GitHub

- Designed a graph-based agentic AI system enabling multi-step reasoning, tool orchestration, and context-aware HR automation workflows.
- Implemented a Retrieval-Augmented Generation (RAG) pipeline using Sentence Transformers and PostgreSQL (pgvector) for semantic search across recruitment and policy documents.
- Integrated structured state management and anti-hallucination safeguards to ensure reliable and consistent LLM outputs during complex task execution.

VibeeChat – Secure Messaging Platform

Django, DRF, JWT, Cryptography | Live | GitHub

- Developed a secure messaging backend using Django REST Framework with Fernet-based symmetric encryption to protect user messages at rest.
- Implemented JWT-based stateless authentication, granular permissions, and optimized APIs for private chat retrieval.
- Engineered atomic database transactions for friend requests, removals, and message access to ensure data consistency.

WhatsApp Chat Analysis

Python, Streamlit, NLP | Live Link

- Built a Streamlit-based web application to analyze WhatsApp chat exports and evaluate user interest levels.
- Extracted NLP features such as sentiment polarity, emoji frequency, response latency, and message patterns.
- Achieved over 85% accuracy in engagement prediction using machine learning models and custom heuristics.

Fake News Detection System

Python, NLP, Machine Learning | GitHub

- Developed an NLP-driven fake news detection system using TF-IDF vectorization and text preprocessing techniques such as lemmatization.
- Trained and evaluated multiple classifiers including Logistic Regression, Random Forest, and Passive Aggressive Classifier.
- Deployed the model using Streamlit to enable real-time news authenticity prediction with 95% accuracy.

QR Code Encryption and Decryption Web App

Flask, Python, Cryptography | GitHub

- Created a Flask-based web application to securely encrypt URLs and generate QR codes from encrypted data.
- Implemented QR code scanning and decryption logic to safely retrieve original URLs without exposing raw data.
- Focused on data confidentiality and secure information sharing through lightweight cryptographic workflows.