

EMIL ALEXANDER GEORGE

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EDUCATION

1. **Vellore Institute of Technology, Bhopal** 2025
Bachelor of Technology in Computer Science and Engineering(AIML)
CGPA: 7.02
2. **Marian Senior Secondary School, Kottayam** 2021
12th Grade
Overall Percentage: 84%
3. **Pallikoodam, Kottayam** 2018
10th Grade
Overall Percentage: 84.2%

CORESKILLS

Technical Skills:

Programming Languages Java, MySQL, Flutter, Python

Software Tools Tinkercad, Figma, Django framework

Non-Technical Skills: Time management, Adaptability, Teamwork
Problem Solving, Communication, Leadership

PROJECTS

1. **Ultrasound Nerve Segmentation using Deep Learning** June 2024–April 2025

Python, TensorFlow, Keras

Role: Developer/Designer

- Designed and implemented a U-Net based convolutional neural network for semantic segmentation of ultrasound nerve images. Optimized training with learning rate scheduling, Adam optimizer, and early stopping to reduce overfitting.
- The model achieved an IoU score of 0.79 and a Dice Coefficient of 0.87, indicating high segmentation precision.

2. **Predictive Inventory Management System**

Nov 2025–Dec 2025

Python, TensorFlow, Keras, React

Role: Developer/Designer

- Built an end-to-end AI system to predict spare-parts stock-outs and optimize inventory for logistics operations.
- Implemented weekly demand forecasting using LSTM and stock-out risk prediction using XGBoost. Achieving an accuracy of ~99%.
- Engineered time-series features (rolling averages, lag features, seasonality) to improve prediction reliability.
- Developed a Flask REST API and React dashboard to deliver real-time risk alerts, forecasts and reorder recommendations.

3. Healthcare Research Assistant using RAG System

Dec 2025 – Jan 2026

Python, LangChain, FAISS, Hugging Face

Role: Developer/Designer

- Built a RAG-based system to answer queries strictly from healthcare research papers.
- Implemented PDF ingestion, text chunking, and semantic embeddings for accurate document retrieval.
- Enabled multi-document question answering with document-grounded responses to reduce hallucinations.
- Added safe fallbacks when information is not present in the source documents.

INTERNSHIPS

1. Directorate of Technical Education, Trivandrum

Sept 2025

Role: Full-Stack Developer

- Developed a Django based web system for centralized cadre and employee management across institutions. Designed relational models for cadres, designations and transfers using Django ORM.
- Implemented real-time vacancy tracking, role based authentication and MIS dashboards for data-driven administrative insights.

CERTIFICATIONS

Artificial Intelligence—Teachnook, IIT Bhubaneswar

March 2023

Industrial Application of Microcontroller—L&T Edutech

Nov 2023

Certified Cloud Practitioner – AWS

July 2024

ACHIEVEMENTS AND RESPONSIBILITIES

Achievements

- Represented the school in state-level athletics competitions for Shot Put and Javelin in 2017 and 2018
- Part of the school basketball team in CBSE Cluster meet and Sahodaya Inter-School tournaments, Champions of the inter-college Basketball 2024 season.

Responsibilities

- Main coordinator, Malayalam Club, VIT.
- Organized festive events and led various school and college event organizations, enhancing community engagement and collaboration. Coordinated and executed 10+ community service projects targeting the local problems.

HOBBIES

Sports, Event Management, Culinary Arts

LANGUAGES

English, Malayalam, Hindi, Tamil