Angela Emile Jose

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LinkedIn | GitHub | Portfolio Website

OBJECTIVE

Detail-oriented and motivated 4th-year B.E student majoring in Computer Science at Kyungpook National University, seeking an internship or entry-level position in the tech industry. Offering a solid academic background and leadership experience.

KEY COMPETENCIES

- Specialization: Artificial Intelligence and Machine Learning
- Programming Languages: Python, C, java
- Algorithms and Data Structures

- Strong interpersonal skills
- Proactive and self-motivated
- Excellent communication skills

PROFESSIONAL EXPERIENCE & RESEARCH

SSE Lab, Kyungpook National University (KNU)   **May 2025 – Present**
Research Assistant

- Conducting research on Large Language Models (LLMs) for formal verification of software.
- Developing an **automated pipeline to translate C program specifications into formal language specifications for verification using the CBMC model checker**.

MLFM Lab, Kyungpook National University (KNU)   **Nov 2025 – Dec 2025**
Research Intern

- Engineered machine learning models for Medical Image Registration, focusing on high-precision alignment of lung clinical data.
- Conducted rigorous experimental testing and validation, achieving a 0.91 correlation coefficient, significantly improving the reliability of automated diagnostic registration.
- Optimized data preprocessing pipelines to handle complex clinical datasets, ensuring consistency across multi-modal imaging sources.

Computational Biology and Bioinformatics Lab   **Sept 2024 – Nov 2024**
Research Assistant Intern

- Provided comprehensive technical and analytical support for a Master's student's thesis, focusing on data processing and analysis within the field of computational biology.

ThinkPalm Technologies Pvt. Ltd   **April 2024 – May 2024**
Research Assistant Intern-AI Department

- Contributed to various **small-scale Artificial Intelligence projects**, gaining practical experience in implementing machine learning solutions.
- Focused on core tasks including **object detection and image classification algorithms**.

PROJECTS

Project Collaboration (Company: WIM)   **Sept 2025 - Dec 2025**

- Collaborated on a project titled "**A Study on Audio Noise Cancellation Using a TasNet-GAN Model**" to design a low-cost hearing aid circuit and apply a TasNet-GAN deep learning model, achieving a 31% improvement in PESQ and 14% improvement in STOI for audio quality enhancement. The project was awarded **1st place** at the **KICS conference**.

Personal Portfolio Website   **Dec 2025**

- Designed and built a full-stack portfolio website showcasing projects, work experience, and technical skills
- Implemented smooth animations and transitions using Framer Motion for enhanced user experience
- Deployed on Vercel with automatic deployments via GitHub integration
- Tech Stack: Next.js 14, TypeScript, Tailwind CSS, Framer Motion
- Live: https://angelaemilejose.vercel.app/

NutriFlow AI
                                                                        Nov 2025 – Dec 2025
Multimodal Nutrition Analysis System

- Co-developed an intelligent, multimodal agentic workflow to **automate nutritional tracking using LangGraph and Qwen-VL-Plus.**
- Implemented Visual Dish Recognition for multi-item identification and portion estimation, integrated with a dynamic online query tool for real-time nutritional API fetching.
- Tech Stack: Python, LangGraph, Qwen-VL-Plus, Multi-agent Systems.

                                                                        Dec 2025
ReportRAG

Intelligent Financial Analysis System

- Built a **Retrieval-Augmented Generation (RAG) system** to extract insights from 100+ page annual reports and financial statements using Llama 3 (Groq API).
- Developed a high-performance vector retrieval pipeline using FAISS and SentenceTransformers to reduce LLM hallucinations through strict context enforcement.
- Designed "fact-check" prompt engineering workflows to provide cited, precise answers to complex financial queries (e.g., gross margin analysis).
- **Tech Stack: Python, FastAPI, LangChain, FAISS, Llama 3-70B, PyMuPDF.**

                                                                        Dec 2025
K-Context

Cultural Interpretation Translator website

- Developed a specialized translation web app for international travelers in Korea, utilizing Google Gemini 2.5 Flash for high-context linguistic analysis.
- Engineered features beyond literal translation, including automated politeness level detection, safety scores, and localized tips for foreigners.
- **Optimized for mobile-first performance by implementing a Progressive Web App (PWA)** architecture with Next.js 16 (App Router).
- Tech Stack: Next.js 16, Tailwind CSS, Gemini 2.5 Flash, Vercel, PWA.

EDUCATION

Kyungpook National University ,South Korea
Bachelor of Engineering (B.E) in Computer Science (Double Degree Program)
Expected Graduation: 2026
- GPA - 3.6/4.3

Christ University, Bangalore, India
Bachelor of Technology (B.Tech) in Computer Science with specialization in AIML and Minors in General Management.
Expected Graduation: 2026
-GPA- 3.88/4

EXTRACURRICULAR ACTIVITIES

English Mentor
International Writing Center, KNU
- Mentoring and coaching Korean university students to significantly improve their English proficiency and academic writing skills.

Won the Video Contest hosted by the KNU-OIA Youtube

Maintains a Personal Blog

KNU Student Ambassador -2024

Member of the Student Council, Christ University