John Paul R. Martirez

(+63) 950 871 8888 | johnpaulmartirez0915@gmail.com | LinkedIn | GitHub | Portfolio

TECHNICAL & RESEARCH PROJECTS

FORENSPECT | Digital Image Forensics Framework **January 2026 – Present**

Thesis Project

- Developed a dual-branch deep learning framework using PyTorch, EfficientNet-B0, and TruFor-inspired Transformers to detect AI-generated and manipulated images.
- Built a cross-platform forensic application using FastAPI, Next.js 16, and Tauri v2, with automated PDF report generation and visual forensic overlays.

Ephnyr AI | Full-Stack Multi-Tenant RAG Platform **August 2026**

AI & System Architecture

- Built a full-stack multi-tenant RAG platform using Next.js 14, FastAPI, LangChain, PostgreSQL, pgvector, and 384-dimensional FastEmbed embeddings for document search and retrieval.
- Integrated Groq LLM for fast AI responses with document citations, separate knowledge rooms, temporary session data, and automated storage quotas.

FocusFolio | AI Study Workspace & Document Quiz Generator **July 2026**

EdTech & AI Platform

- Built a system using Next.js, FastAPI, LangChain, Pinecone, and Google Gemini that automatically converts uploaded PDF lessons into interactive quizzes and flashcards.
- Created a split-screen study workspace with a built-in PDF reader and an AI tutor that strictly answers questions based on the uploaded document to keep students focused.

CheckMatePH | Political Fact-Checking & Civic Engagement Platform **May 2026**

SIKAPTala 2026 Hackathon | Top 10 Finalist (7th Place) | De la Salle University - Dasmariñas

- Developed an AI-driven fact-checking pipeline that evaluates submitted claims against verified public records to combat online misinformation for Filipino voters.

EDUCATION

Manuel S. Enverga University Foundation **May 2027**

Bachelor of Science in Computer Science *Lucena City, Philippines*

- **Relevant Courses:** Programming Languages, Data Structures & Algorithms, Software Engineering, Database Management Systems, Cloud Computing
- **Honors & Scholarships:** DOST-SEI Scholar, University Scholar, Consistent Dean's Lister

LEADERSHIP EXPERIENCE

MSEUF Association of Multimedia Artists and Technologists

4th Year Representative | BSCS **July 2026 – Present**

3rd Year Representative | BSCS **July 2025 – May 2026**

- Acted as the primary representative between CS students and executive officers, communicating academic concerns and coordinating department-wide technical activities.

TECHNICAL SKILLS

Languages: Python, JavaScript, TypeScript, Java, SQL

Frameworks & Libraries: React, Next.js, FastAPI, Node.js, Tailwind CSS, LangChain

Databases & Backend: Supabase, PostgreSQL, RESTful APIs

Cloud & Deployment: Microsoft Azure Fundamentals, Vercel

Developer Tools: Git, GitHub, Postman, CI/CD basics