Neil Artus

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SUMMARY

Software Engineer specializing in Python backend systems, Progressive Web Applications, and AI-powered applications, with hands-on experience deploying production workloads on Azure and bare-metal infrastructure.

SKILLS

Languages: Python, JavaScript
Web: FastAPI, Flask, React, Tailwind CSS
AI and ML: TensorFlow, PyTorch, LangChain, VertexAI, Pinecone
Cloud and DevOps: Azure, Google Cloud, Hetzner, Nginx, Docker

EXPERIENCE

Volunteer Software Engineer, Albawani Co. - Remote **AUG 2025 - JAN 2026**

- Developed an internal HR automation tool that generates an attendance summary report for 10,000+ employees.
- Integrated the system with existing IT infrastructure on Hetzner bare-metal servers using Python.
- Implemented authentication and role-based access control using Microsoft Entra ID to protect employee data.

GenAI Research Intern, JG Summit Holdings Inc. - Metro Manila **JUN 2025 - AUG 2025**

- Developed and deployed a full-stack GenAI application for the Treasury Department, utilizing Azure OpenAI and LangChain to automate complex data retrieval tasks.
- Built robust data validation pipelines using SQL, Pandas, and Pydantic, ensuring high-fidelity outputs by programmatically comparing LLM responses against ground-truth scraped data.
- Accelerated the turnover process by engineering a modular architecture and comprehensive documentation, enabling full-time engineers to deploy production code within 3 days of transfer.
- Collaborated with an Agile team to transform raw financial data requirements into a working Proof of Concept (POC), bridging the gap between technical constraints and business needs.

Embedded AI Developer, Lyceum of the Philippines University - Cavite **MAR 2025 - JUN 2025**

- Presented at LPU - Cavite Innovex 2025 Colloquium and awarded COESCA research of the year
- Coordinated with a non-technical team to train a Convolutional Neural Network based on MobileNet architecture using TensorFlow for osteoarthritis detection.
- Wrote a Python script to run inference on a Raspberry Pi 5 connected to a thermal camera.

PROJECTS

MediSeen (*Capstone Project*)

- Led a team to develop an AI-powered progressive web application providing clinical decision support
- Engineered a microservice architecture using industry-standard cloud tools on Azure, resulting in an average response latency of 98 ms for database queries, and average response latency of 2000 ms for AI tasks
- Developed a responsive viewport for mobile using Tailwind CSS; increased system usability score by 15%.
- Implemented security features by using FastAPI middleware and routing traffic to a Cloudflare DNS Tunnel.

Neural Networks from Scratch

- Built core machine learning algorithms from scratch using JAX; matched the accuracy of existing Python AI frameworks
- Implemented functional programming techniques to enable jit-compiled performance benefits to certain computations, while wrapping the core logic in an OOP wrapper for better developer experience

Formal Language Compiler

- Built a web compiler using Flask and JavaScript for visualizing deterministic formal languages.
- Wrote an algorithm to accurately simulate Deterministic Finite Automata, processing input strings against complex state transition tables.
- Ensured code coverage by using pytest to ensure reproducibility and that the compiler works as formally defined

EDUCATION - De La Salle University - Dasmariñas (GPA 3.5)

Bachelor of Science in Computer Science with Specialization in Intelligent Systems

- **Relevant Coursework:** Programming, Data Structures and Algorithms, Machine Learning, Databases, Web Development, Networking, Operating Systems
- **Extra-Curriculars:** Secretary, Codessey Program Head - Computer Science Program Council