

Lu Phone Maw

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EDUCATION

Assumption University

Bachelor of Science in Computer Science

Samut Prakan, Thailand

Jun 2022 – Oct 2025

EXPERIENCE

Lead Software Engineer – Client-Sponsored Senior Capstone

May 2025 – Oct 2025

Myat Pwint Book Publishing House

Remote

- **Led** backend architecture and development of a client-tested publishing platform using Next.js, React, TypeScript, Supabase, and PostgreSQL across reader, author, editor, and publisher workflows.
- **Implemented** role-based manuscript submission and review, real-time workflow-aware chat, unread notifications, physical inventory tracking, and automated low-stock alerts.
- **Built** semantic book search and recommendations using Hugging Face multilingual embeddings, PostgreSQL pgvector, and cosine similarity to support meaning-based book discovery.
- **Prototyped** an n8n marketing pipeline using Gemini and OpenRouter to generate promotional copy and images, store assets in Supabase, and support publisher approval before multi-channel publishing.

LLM Research

Oct 2024 – Mar 2025

Assumption University

Samut Prakan, Thailand

- **Fine-tuned** Llama 3 8B and Mistral 7B for aspect extraction + sentiment; achieved 95.4% F1 and 89.3% accuracy, +3.14% over SOTA baselines.
- **Implemented** QLoRA/4-bit quantization (A100) with Unsloth, reducing memory up to 8× across 8 configs with minimal performance loss.
- **Designed** InstructABSA-style **prompts** with domain-specific examples for restaurant and laptop review domains, enabling LLMs to outperform traditional fine-tuning approaches on SemEval 2014 benchmark dataset.

PROJECTS

Nexvent – Full-Stack Event Management Platform | [GitHub](#) | [Live Demo](#)

2025 – 2026

- **Built** a full-stack event-management platform using Next.js, TypeScript, PostgreSQL, Prisma, and NextAuth with role-based experiences for attendees, organizers, and administrators.
- **Designed** REST APIs for users, events, and registrations with Zod validation, filtering, pagination, capacity and waitlist logic, administrative batch operations, rate limiting, and request logging.
- **Implemented** unique QR event tickets, camera-based check-in, responsive role-specific dashboards, and transaction-safe attendance workflows; deployed the application on Vercel with Neon PostgreSQL.

TalkToData – AI Data Analysis SaaS | [GitHub](#) | [Live Demo](#)

2025

- **Developed** a full-stack AI analytics SaaS using Next.js, FastAPI, Supabase, GPT-4o, and the OpenAI Agents SDK that converts natural-language questions about CSV and Excel files into computed insights and visualizations.
- **Implemented** 13 agent tools for statistical analysis, filtering, grouped aggregation, correlation, and chart generation, along with authenticated file uploads, persistent conversations, usage tracking, chart storage, and Dockerized deployment.

Churn Classification MLOps Pipeline | [GitHub](#)

- **Performed** EDA + feature engineering on 7,043 records; encoded 21 raw features into 30 model-ready features and identified key churn drivers.
- **Trained** Random Forest/LightGBM/XGBoost; optimized XGBoost with Optuna to reach 94.1% recall (+9.9%) with MLflow tracking.
- **Deployed** a FastAPI + Gradio service (5ms latency) with Docker + GitHub Actions CI/CD to AWS ECS Fargate.

Pneumonia Detection from Chest X-Rays | [GitHub](#) | [Live Demo](#)

- **Trained** an EfficientNet-B0 classifier on 5,200+ chest X-rays using two-stage transfer learning (frozen → fine-tuned); achieved 90.5% accuracy and 98.2% recall, prioritizing patient safety by minimizing missed diagnoses.
- **Implemented** Grad-CAM visualizations to highlight lung regions driving predictions, enabling clinician validation of model decisions for medical AI transparency.
- **Deployed** full-stack inference pipeline (FastAPI REST API + Streamlit UI) to Hugging Face Spaces with GitHub Actions CI/CD and ONNX export for cross-platform compatibility.

Pawsitive – Pet Adoption & Rescue Platform | [GitHub](#)

2023 – 2024

- **Collaborated** on a database-driven web prototype using HTML, CSS, JavaScript, PHP, and MySQL, featuring pet search, animal profiles, adoption forms, application-status tracking, and rescuer and seller listing workflows.

TECHNICAL SKILLS

Languages: TypeScript, Python, SQL, JavaScript
Frontend: React, Next.js, Tailwind CSS, HTML/CSS
Backend & APIs: FastAPI, Next.js API Routes, REST APIs, Webhooks
Databases & Auth: PostgreSQL, MySQL, Supabase, Prisma, NextAuth, pgvector
AI/ML: PyTorch, scikit-learn, Hugging Face Transformers, XGBoost, PEFT/QLoRA, LLM APIs
Cloud & DevOps: Docker, GitHub Actions, AWS, Vercel, Git, MLflow, n8n

CERTIFICATIONS

Google Data Analytics Professional Certificate Google	Nov 2025
Machine Learning Coursework DeepLearning.AI	Mar – Aug 2024
Supervised Machine Learning; Advanced Learning Algorithms; Unsupervised Learning, Recommenders & Reinforcement Learning.	
AWS Academy Cloud Foundations Amazon Web Services	Feb 2024