KAUNG MYAT KYAW

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EDUCATION

Master of Science in Computer Science, University of Colorado Boulder **Expected May 2026**
Cumulative GPA: 4.0

Coursework: Machine Learning, Deep Learning, Data Mining Pipelines, Generative AI, Big Data Software Architecture, Database Systems, Robotics Systems

SKILLS

Technical Skills: Python, C++, JavaScript, Java, SQL, NoSQl; Vector Databases, ChromaDB, MongoDB, DynamoDB; PyTorch, TensorFlow, Keras, Scikit-learn, Hugging Face Transformers, OpenCV, NumPy, Pandas, Matplotlib; LangChain, Git, Docker, REST APIs, GraphQL; AWS (EC2, S3, SageMaker), CI/CD, Linux/UNIX, Apache Spark.

ML & Systems Expertise: Machine Learning, Deep Learning, NLP, Computer Vision, MLOps, Model Deployment, Containerization, Data Engineering, Feature Engineering, Distributed Training, Fine-Tuning, Hyperparameter Tuning, Model Evaluation (Precision, Recall, ROC, AUC), System Design, Scalable System, Latency Optimization, RAG(Retrieval-Augmented Generation).

EXPERIENCE

Software Engineer (Volunteer) Jan 2025 – Present

Democratic Burma, Washington, DC

- Migrated the organization website from Webflow CRM to Next.js, reducing load time by **40%** and improving maintainability.
- Designed and developed a **content-based recommendation system** to match students with relevant educational courses, improving engagement **30%**.
- Built a volunteer recruitment platform integrated with dynamic forms and submission tracking using **React, Tailwind, and MongoDB**,**collaborating cross-functionally with community organizers** to refine requirements.
- **Led development** of "Flow State App", a Pomodoro and meditation tool for Myanmar IDP camps; **drove product decisions end-to-end** from ideation to deployment, supporting 1,000+ children.

PROJECTS

Flow State App *NextJS, ReactJS, Vercel, MongoDB*

Designed and deployed a **full-stack** productivity app combining Pomodoro timer, meditation, and task-linked focus cycles, tailored for displaced students in Myanmar IDP Refugee camps. Used static generation and cloud deployment with **CI/CD** via GitHub on Vercel. Supported **1000+ users**; aimed to enhance focus, engagement, and mental health using behavioral reinforcement loops.

Retrieval-Augmented Generation for AWS Exam Q&A *PySpark, LangChain Agents, Spark UDFs, Hugging Face Transformers, ChromaDB, Distributed Systems, LLMs (LLaMA 4)*

Designed a **multi-agent RAG system** using **LangChain** where specialized agents collaborate to decompose queries, retrieve context, and synthesize answers. This architecture is powered by a scalable **PySpark** ETL pipeline that automates data ingestion and parsing, improving answer accuracy by **24%** over fine-tuned **Gemma3 models**. The pipeline features a high-throughput, **GPU-accelerated** embedding process using **Spark Pandas UDFs** for distributed batch inference, ensuring the agent system is fueled by efficiently processed, high-quality data.

Customer Segmentation with Unsupervised Learning *Python, scikit-learn, Matplotlib, Seaborn*

Segmented customers in an online retail dataset using **K-Means and Hierarchical Clustering**; applied EDA, outlier detection, transformation, and standardization; **tuned hyperparameters** using Elbow and Silhouette methods to identify meaningful clusters for business insights. Engineered features and removed outliers to boost cluster interpretability by **50%**. [Github]

BBC News Classifier with Supervised and Unsupervised Models *Python, SVC, K-Means, NMF*

Built a news **classification system** trained on the BBC dataset using both supervised (SVC: **98.5%** accuracy) and unsupervised (NMF: **95.5%** accuracy) methods. Preprocessed and vectorized news articles to categorize into business, politics, tech, and sports. [Github]

Personal Portfolio Website *Next.js, React.js, Vercel, CI/CD*

Built and deployed a **fully static, SEO-optimized** developer portfolio site with custom project showcase and **continuous deployment**. [Github]

Certification: *Machine Learning Engineering for Production (MLOps)*, DeepLearning.AI [Certificate]