

Austin Wisness

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PROFESSIONAL SUMMARY

AI/ML Engineer with a CS degree, Artificial Intelligence Certificate, and a portfolio of production-grade ML systems spanning deep learning, semantic search, recommender systems, and agentic AI. Certified in PyTorch (DeepLearning.AI) with hands-on experience building end-to-end pipelines through containerized deployment.

EDUCATION

University of Missouri-St. Louis

Bachelor of Science, Computer Science. Certificate of Artificial Intelligence.

2024

Relevant Coursework: Machine Learning, Deep Learning, Linear Algebra, Statistics, Data Structures & Algorithms

EXPERIENCE

IT Manager

2022 – 2026

Calix Solutions

- Oversaw IT infrastructure supporting 1,000+ clients; championed adoption of LLM-based tools for staff communication and document workflows.
- Managed data security, integrity, and regulatory compliance across all systems.

IT Associate

2021 – 2022

Calix Solutions

- Configured and deployed devices and software for 900+ clients across domestic and international regions.
- Built and maintained proprietary scripts for automation and device imaging.

Computer Technician

2018 – 2021

Phelps Health

- Configured, updated, and troubleshooted software across 1,000+ PC stations in a healthcare environment.

PROJECTS

Leaf Disease Detection

<https://github.com/a-wisness/Portfolio/tree/main/leaf-disease-multitask>

Python, TensorFlow, Multi-Task Learning

- Designed a multi-task CNN (MobileNetV2 encoder, U-Net decoder, 28-class softmax head) for simultaneous leaf segmentation and disease classification in one forward pass.
- Evaluated on held-out set: IoU 0.79 / Dice 0.86 with per-class P/R/F1; ran ablation quantifying auxiliary-task lift.

Semantic Search Studio

<https://github.com/a-wisness/Portfolio/tree/main/llm-semantic-search>

Python, sentence-transformers, ChromaDB, FastAPI

- Built a production RAG pipeline (chunking, local embeddings, ChromaDB vector search, Claude synthesis) with inline citations and context-grounded prompting to suppress hallucinations.
- Decoupled local embedding from LLM synthesis to minimize API cost; instrumented per-stage latency, token, and cost metrics.

CineMatch — PyTorch Recommender System

<https://github.com/a-wisness/Portfolio/tree/main/pytorch-recommender>

Python, PyTorch, FastAPI, Docker

- Implemented NeuMF from scratch on implicit feedback; benchmarked 7 models under leave-one-out protocol (HR@10 / NDCG@10), NeuMF topping all baselines at HR@10 0.733.
- Deployed via FastAPI with versioned model registry, zero-downtime hot-swap, and Docker Compose containerization.

Discord AI Agent <https://github.com/a-wisness/Portfolio/tree/main/discord-ai-agent>

Python, LLM API, SQLite FTS5, Alembic

- Built an agentic tool-use loop supporting Anthropic (Claude) and OpenAI interchangeably, with RAG-style retrieval via SQLite FTS5, retry/backoff, and per-user rate limiting.
- Productionized with Alembic migrations, persisted conversation memory, structured JSON logging, and Docker Compose deployment.

CERTIFICATIONS

- PyTorch for Deep Learning Specialization — DeepLearning.AI (May 2026)
- Agentic AI — DeepLearning.AI (May 2026)
- Generative AI for Software Development — DeepLearning.AI (June 2026)
- Spec-Driven Development with Coding Agents — DeepLearning.AI (June 2026)

SKILLS

ML / Deep Learning: PyTorch, TensorFlow, Scikit-Learn, Computer Vision, RAG, Recommender Systems, Multi-Task Learning

LLMs & GenAI: Agentic Workflows, LLM-Powered Applications, Generative AI for Software Development

Languages: Python, SQL, C++, JavaScript

Data & Tools: pandas, NumPy, Docker, FastAPI, Git, Linux