

Darin Williams

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ARTIFICIAL INTELLIGENCE / MACHINE LEARNING ENGINEER

Summary

Senior Software Engineer transitioning into Artificial Intelligence and Machine Learning with 15+ years building scalable enterprise systems in healthcare and retail. Currently specializing in LLMs, RAG systems, and agentic AI frameworks (LangChain, CrewAI). Passionate about designing intelligent, production-grade solutions that drive measurable business impact

Selected AI & ML Projects

- **Healthcare Insight NLP Agent (LLMs, RAG)**

Built retrieval-augmented generation pipeline using LangChain, Hugging Face, and Chroma; improved diagnostic QA accuracy by 90% and reduced latency 60%.

- **PPE Detection (Computer Vision)** – Fine-tuned VGG16 CNN for PPE detection using Tensorflow, and OpenCV; achieved 92% accuracy, and 30% faster inference on GPU runtime. Optimized model for edge deployment with ONNX quantization.

- **Retail Sales Forecasting App**

Developed demand forecasting model with XGBoost model ($R^2 = 0.75$); deployed via Streamlit & Docker to support merchandising decisions using feature importance analysis

Experience

Senior Software Engineer – HCSC (2007-2023)

- Architected microservices 1M+ daily trans
- Mentored engineers on Kotlin, Java, ReactJS and automated CI/CD automation (Jenkins)
- Partnered with data teams to modernize analytics pipelines
- Currently leveraging this experience in designing and deploying agentic and ML-driven systems

AI/ML Transition & Continuing Education

- **MIT** - Professional Certificate Program in AI & ML (07/2025)
- **Johns Hopkins University** - Certificate in Agentic AI (02/2026, Expected)
- **Microsoft** - Azure AI Engineer Associate (05/2025)
- **Microsoft** - AI & ML Engineering Professional Certification (02/2025)
- **Udacity** - Intro to ML with TensorFlow Unsupervised Learning (02/2025)
- **Udacity** - AI Programming with Python (01/2025)
- **Udacity** - Programming Transfer Neural Networks (Pytorch) (01/2025)

Education

- Postgraduate Program in AI & ML – **UT Austin**, Tx , (01- 08/2025)
- M.S. Software Engineering – **Regis University**, Co, (2015 - 2017)
- B.S. Computer Science – **WGU**, Tx, (2012 – 2015)

Skills

Agentic AI & LLMs: LangChain • Crew AI • SmolAgents • MCP • OpenAI

Machine Learning: TensorFlow • PyTorch • YOLO • Scikit-learn • OpenCV

Software Engineering: Python • Java • SQL • ReactJS • Kotlin

Cloud: Azure • AWS • Vercel • GCP

MLOps: TerraForm • Jenkins • Docker • Github Actions

Tools: Streamlit • Flask • HuggingFace • FastAPI • LlamaIndex • Tavily

Math: Linear Algebra • Optimization • Probability & Statistics • Calculus

Leadership

- Voted Software Developer of the Year by peers, *HCSC* - (2019 – 2020)
- Mentor Cohort on Machine Learning and Debugging Issues, *UT, Austin*
- Coordinated monthly engineering forums to promote Java best practices and code quality, *HCSC*

Find me online

- LinkedIn: <http://linkedin.com/in/darinjswilliams>
- E-Portfolio: <https://www.mygreatlearning.com/eportfolio/darin-williams>
- Demos: <https://darinjswilliams.github.io>

Availability: Remote • Hybrid• On-site