

## **ERIC HOLT**

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## **PROFESSIONAL SUMMARY**

Software and AI developer with hands-on experience building LLM applications, RAG pipelines, reinforcement learning agents, and full-stack web applications. Strong background in diagnostics and embedded systems from seven years supporting emergency vehicle platforms. Skilled in Python, JavaScript, machine learning workflows, and modern development tools.

## **TECHNICAL SKILLS**

Programming: Python (PCEP Certified), JavaScript, HTML/CSS, C#

AI/ML Frameworks: PyTorch, TensorFlow, Transformers, Scikit-Learn

Data Tools: NumPy, Pandas

ML Concepts: RAG, LLM fine-tuning, reinforcement learning, model evaluation

Web Development: React, Flask, REST APIs

Tools: Git, Docker, VS Code, Jupyter, PlatformIO

Embedded & Systems: CAN bus, PLC basics, IoT/Embedded Diagnostics

## **EDUCATION**

DeVry University – Bachelor of Science in Computer Information Systems (Expected 2028)

Specialization: Programming, Machine Learning & Design Technology

## **CERTIFICATIONS & ACCOMPLISHMENTS**

PCEP – Certified Python Programmer, 2025

Dean's List, DeVry University, 2025

Web Scraping with Python, DeVry University, 2025

Vibe Coding with AI, DeVry University, 2025

National Society of Leadership and Success – Inducted Member

## **TECHNICAL PROJECTS**

### **AI Tutor - TinyLlama + LoRA (Python, LangGraph, FastAPI, Docker, Azure)**

- Built a lightweight AI tutoring backend using a quantized TinyLlama model with a custom LoRA fine-tuned for beginner-level programming instruction.
- Implemented a LangGraph-based orchestration pipeline supporting base vs fine-tuned model comparison and structured tutoring prompts.

- Deployed as a Dockerized FastAPI service on Azure Container Apps with autoscaling-to-zero and CPU-optimized inference via llama.cpp.

### **Transport LLM-WebGPU (React, Python, RAG, Local Corpus)**

- Developed a fully client-side LLM accelerated with WebGPU, enabling on-device inference with zero server dependency.
- Implemented vector search, embeddings, and prompt-augmentation for a custom RAG pipeline.
- Built a React interface controlling weight loading, retrieval visualization, and model inference.

### **Reinforcement Learning Warehouse Bot (Python, PyTorch, Gymnasium)**

- Designed and trained a reinforcement learning agent for warehouse navigation and pick-and-place optimization.
- Implemented custom reward shaping and DQN/PPO training loops.
- Improved simulated route efficiency and reduced idle movement through iterative policy tuning.

### **Weather Web App (Python, Flask, Bootstrap, Chart.js)**

- Developed a responsive weather dashboard delivering real-time and forecast data.
- Implemented chart visualizations, search history, and error handling.
- Deployed continuously on Render for live public access.

### **Image Classifier Web App (JavaScript, TensorFlow.js)**

- Built a browser-based image classifier running entirely on the client.
- Created an interactive UI and deployed for 24/7 availability.
- Demonstrated understanding of ML inference in web environments.

## **EXPERIENCE**

### **Software Engineer / Full-Stack Developer – Get Set Wedding (Dec 2025–Present)**

#### Get Set Wedding (Startup / Contract)

- Shipping a production web app: auth/onboarding, dashboards, and planning tools.
- Built Supabase persistence (user state + constraints) and hardened login/refresh flows.
- Developing admin features, automations, and subscription-ready infrastructure.

### **Technical Diagnostics & Systems Specialist – Emergency Vehicle Platforms (2017–2024)**

City of Coppell • City of Grapevine • Siddons-Martin Emergency Group