



# ERIC HOLT

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[LinkedIn: Eric-Holt-Computer-Engineering-Technology](#)

Portfolio: <https://ericholt.dev>

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## PROFESSIONAL SUMMARY

Driven software developer with hands-on experience in AI, machine learning, and full-stack development. Skilled in building RAG systems, deploying client-side LLMs, developing reinforcement learning agents, and creating intelligent web applications. Strong foundation in Python, cloud concepts, and modern JavaScript frameworks, with a focus on scalable, production-ready AI solutions.

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## TECHNICAL SKILLS

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

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

**Data & Analysis:** NumPy, Pandas

**ML Concepts:** RAG, LLMs, fine-tuning, reinforced learning, model evaluation

**Web & Development:** React, Flask, REST APIs

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

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

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## EDUCATION

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

Specialization: Programming, Machine Learning & Design Technology

Relevant Coursework: Technology, Data Structures & Programming

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## CERTIFICATIONS & ACCOMPLISHMENTS

- PCEP – Certified Entry-Level Python Programmer, Python Institute, 2025
- Dean's List, DeVry University, 2025
- Web Scraping with Python, DeVry University, 2025
- Vibe Coding with AI, DeVry University, 2025

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## TECHNICAL PROJECTS

### Transport LLM-WebGPU (React, Python, RAG, Local Corpus) - [Live Demo](#) | [GitHub](#)

- Developed a fully client-side LLM with WebGPU acceleration, enabling on-device inference with zero server cost.
- Built the React-based interface for loading weights, managing context, running inference, and visualizing retrieval steps.
- Implemented custom RAG pipeline using a local transportation corpus with vector search and prompt augmentation.

### Reinforced Learning Warehouse Bot (Python, PyTorch, Gymnasium) - [Live Demo](#) | [GitHub](#)

- Developed and trained a reinforcement learning agent to optimize warehouse navigation and pick-and-place operations in a simulated environment.
- Designed custom reward functions and implemented DQN/PPO algorithms using Gymnasium for efficient route planning and reduced idle time.

### Flask Chatbot Web App (Python, Flask, Render Deployment) - [Live Demo](#) | [GitHub](#)

- Built and deployed a Flask chatbot web app with GitHub integration and cloud hosting live, 24/7 on Render.
- Troubleshoot deployment errors and optimized routing, showcasing skills in web dev and cloud deployment.

### Weather Web App (Python, Flask, Bootstrap, Chart.js) - [Live Demo](#) | [GitHub](#)

- Developed a Flask web app delivering real-time weather data and multi-day forecasts with user-friendly visualizations live, 24/7 on Render.
- Integrated Bootstrap for responsive design, Chart.js for interactive charts, and implemented search history with error handling.

### Image Classifier Web App (JavaScript, TensorFlow.js, HTML/CSS) - [Live Demo](#) | [GitHub](#)

- Developed a browser-based image classifier using TensorFlow.js, enabling real-time predictions directly in the client without server-side processing.
- Built an interactive web interface with HTML/CSS and deployed it on Render for live, 24/7 availability.

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## EXPERIENCE

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

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