

MARK PELICO

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EDUCATION

University of Houston

B.S., Computer Science, Minor in Mathematics

• **GPA:** 3.68/4.0

May 2026

Houston, TX

EXPERIENCE

Hewlett Packard Enterprise

Software Engineer Intern

Spring, TX · June 2026 - Present

- Designed a multi-model scan/verify pipeline with token and latency instrumentation for self-hosted local LLMs.
- Diagnosed and debugged deduplication defects, raising measured detection recall from 25% to 79% with zero false positives.
- Built a web dashboard and backing HTTP API with enforced data redaction, backed by a 139-test suite and run on 100K+ line codebases.

NASA

Software Engineer Intern

Houston, TX · June 2025 - May 2026

- Automated simulation testing by integrating Python unit tests with C++ Trick workflows, improving reliability 40%.
- Deployed pytest pipelines through GitLab CI/CD and version control systems, cutting manual regression verification time by 70%.
- Developed an AI tool for development productivity that parsed XML schematics into live simulation-linked diagrams through Trick hooks.

University of Houston

Teaching Assistant - Operating Systems & Data Structures (C++) *Houston, TX · January 2025 - May 2026*

- Taught 950+ students across two core C++ courses covering POSIX threads, IPC, memory management, and STL.
- Mentored students through tree, graph, and multithreading implementations, improving assignment completion.

SEP Facilitator - Algorithms & Data Structures

Houston, TX · January 2026 - May 2026

- Facilitated enrichment sessions on algorithm tracing, runtime analysis, recursion, graphs, and hashing.
- Led guided practice and proof walkthroughs to strengthen conceptual depth and implementation strategy.

PROJECTS

Lingonnnect

- Built an AI-powered language exchange platform with real-time speech recognition, translation, and voice synthesis.
- Improved speech recognition reliability to achieve 95%+ accuracy through confidence filtering and voice activity detection.
- Integrated multiple translation APIs with fallback mechanisms to support 50+ languages and improve system resilience.

Animal.ai

- Built the front end for an AI-powered site that accepts user images and delivers real-time animal identification.
- Optimized React state management and API integration to support responsive model inference and a smooth user experience.

Extracurricular

Code Coogs

September 2023 - December 2025

President, VP Operations, Workshops Director

- Directed one of UH's largest CS organizations (**200+** members, **25+** officers), growing membership by **30%+**.
- Secured **\$3,000+** in sponsorships by leading corporate relations with industry and campus partners.

Technical Skills

Languages: Python, JavaScript, TypeScript, C++, Java, SQL, Swift, Bash, HTML/CSS, C#, Go, Rust

Frameworks/Libraries: React, Next.js, Node.js, Express, Flask, pytest, Ollama

DevOps: Git, GitLab CI/CD, Docker, Kubernetes, Linux, AWS, Azure, GCP, MySQL, MongoDB, AI Tools For Development Productivity, Debugging, Software Development Lifecycle (SDLC)

Computer Science Fundamentals: Data Structures, Algorithms, Object-Oriented Design