

# Derek Williams

Software Engineer - AI Developer Experience, Agentic Systems, Enterprise Tooling  
Portland, OR - U.S. Citizen - Open to relocation anywhere in the U.S.

Website: <https://derek-williams00.github.io>

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## Summary

Software engineer specializing in AI-driven developer experience, agentic systems, and secure enterprise tooling, with expertise in scalable retrieval pipelines, enterprise-context delivery, and AI integration across developer communities.

## Skills

**Languages:** Python, TypeScript, JavaScript, SQL, C/C++, Java, Go, C#, Swift | **Frameworks:** React, Node.js, Express, Flask, Redux, .NET, FastMCP | **AI/Systems:** RAG, Vector DBs, MCP, CUDA, AI Eval Pipelines, MLOps | **Platforms:** Git, Docker, Kubernetes, Linux, AWS, Azure, GitOps, IssueOps, CI/CD, Jira | **Databases:** MySQL, PostgreSQL, MongoDB, MariaDB, SQLite, SQL Server, Chroma DB | **Competencies:** Systems design, secure-by-default architecture, auth flows, agentic SDLC, agile development

## Professional Experience

**HP Inc.** Software Applications Engineer - AI Platform & Developer Experience Engineer *February 2025 - Present*

- Earned HP Innovator Award for RAG graph architectures supporting low-latency augmentation of AI coding tools.
- Prevented significant costs (potentially exceeding \$1M) by evaluating and validating productivity impacts of GenAI coding-assistant fine-tuned custom models, directly informing licensing strategy.
- Delivered MCP-based developer platforms enabling secure enterprise-context delivery for AI coding environments and agentic workflows.
- Supported GitHub Enterprise platforms serving 10,000+ engineers, tens of thousands of active repositories, and 8,000+ Copilot-AI users.
- Designed scalable retrieval pipelines using vector DBs, authenticated API layers, and enterprise authorization models.
- Developed integration tooling connecting enterprise knowledge to AI coding assistants, improving developer productivity and code quality.
- Provided office hours guidance supporting AI workflows and prompt-engineering best practices.
- Presented AI-driven developer-experience strategy at internal conferences and leadership events.
- Rewrote an MCP server from Python into a production-grade Golang service with Double-PKCE auth and distributed context retrieval.

**HP Inc.** Software AI Intern

*June 2024 - January 2025*

- Led evaluations of AI coding tools via automated assessment pipelines, enterprise datasets, and hallucination/security analyses
- Supported enterprise developer platforms including Stack Overflow, developer portals, and knowledge systems.
- Produced instructional content showcasing effective GitHub Copilot usage, including prompt-engineering strategies, correction loops, and model-guided code generation.

## Projects

**Nexus** - React, Node.js, TypeScript, Tailwind

**CalHacks 10.0 Grand Prize Winner**

Social networking and voice-chat platform using AI to match users based on shared life experiences and interests.

## Education

**Bachelor of Science, Computer Science**

Oregon State University — Graduated Dec 2024 (ABET-accredited program)