

SHEA STEVENS

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EDUCATION

University of Hawaii at Mānoa: M.C.S., Computer Science Honolulu, HI, Aug 2025 - May 2027

- Focus: AI and Data Science
- Coursework: Graphics Programming, Applied Computing Fundamentals, Machine Learning

University of Oregon: B.S., Computer Science (GPA 3.6) Eugene, OR, Aug 2017 – May 2021

- Focus: Machine Learning/Artificial Intelligence and Game Programming
- Minors: Japanese & Mathematics
- Coursework: Web Development, Probabilistic AI Methodology, Data Structures & Algorithms, Operating Systems

PROFESSIONAL EXPERIENCE

Vindicia: Software Engineer San Francisco, CA, Mar 2022 – Dec 2023

- Enhanced new backend Python subscription billing features with automated recovery workflows, enabling merchants to reclaim 50% of failed transactions.
- Designed real-time transaction processing systems that increased merchant retention by up to 30% through improved data insights and intuitive RESTful API's.
- Led cross-functional collaboration and knowledge transfer with Product, Ops, and Documentation teams throughout the SDLC to create seamless releases.
- Resolved critical performance bottlenecks by optimizing PostgreSQL queries and indexing strategies, achieving 10x faster performance and reducing system load.

University of Oregon: Technology Service Desk Analyst Aug 2019 - Aug 2021

- Resolved 100+ technical and university account-related issues monthly with 98% customer satisfaction.
- Attained a resolution rate of 87% first calls and reduced escalations by 22% through clear collaboration.

TECHNICAL SKILLS

Programming Languages: Python (expert), C++, Go, SQL, JavaScript

ML/AI: Machine Learning, Large Language Models (LLMs), Retrieval-Augmented Generation (RAG), Multi-Agent Systems

Systems & Infrastructure: Distributed Systems, REST APIs, PostgreSQL, FastAPI, Flask, Docker, Kubernetes

Core CS: Data Structures & Algorithms, Object-Oriented Programming, Statistical Analysis

Tools & Platforms: Git, Jenkins CI/CD, Linux/Unix, Event-Driven Architecture

EXTRACURRICULAR

University of Oregon E-Sports: Overwatch Coach/Manager Eugene, OR, Aug 2019 – May 2021

- Managed and played on college Esports team; coordinated video reviews yielding 17% improvement in teamwork and communication; scheduled matches and scrimmages while optimizing timeliness and resolving conflicts.

PROJECTS

Multi-Agent Cache-Augmented Generation MTG Deck Builder github.com/swstevens/agent-cag-system

- Architected agentic AI system with three-tiered caching architecture (100,000 entries across hot/warm/cold storage) coordinating specialized agents for scheduling, knowledge retrieval, and symbolic reasoning.
- Optimized distributed data retrieval performance through statistical analysis of cache hit rates and access patterns, implementing production-grade caching strategies to minimize latency in multi-agent workflows.

RAG Chatbot github.com/swstevens/rag-chatbot-go

- Developed a lightweight Go-based chatbot server optimized for resource-constrained environments (Raspberry Pi), featuring multi-provider LLM support (OpenAI, Ollama), Discord integration, web search capabilities, and HTTPS support with single binary deployment.
- Architected multi-service system with REST API, web interface, and Discord bot using MVC pattern, achieving efficient memory usage (<256MB in ChatGPT mode) and cross-platform compatibility for ARM64/x86_64 deployments

Physics Based Raytracing and Rendering github.com/swstevens/Raytracing

- Implemented a physics-based rendering script in C++, implementing ray tracing and global illumination algorithms.
- Continued graphics development, adding realistic shadows, light diffusion, depth-of-field, and anti-aliasing.

Contact Tracing Web Application

github.com/ryan-moll/Covid-19-Automated-Contact-Tracing-Service

- Used Python, JavaScript, Flask, MySQL, and Github with a group of 5 people to develop a COVID contact tracing website from start to finish.
- Documented specifications through SDS, SRS, and progression using Project Plans and Gantt Charts.
- Developed communication to and from MySQL information database as well as auxiliary functions.