

Willard Hucks

Principal Engineer · Enterprise Systems Engineering

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SUMMARY

Principal engineer with 14 years across infrastructure, DevOps, and platform architecture, now leading applied AI at enterprise scale: local LLM inference (vLLM), agentic and MCP-based systems, governed RAG, and AI cost optimization. Sets direction for model selection, evaluation, and responsible AI consumption while staying hands-on; track record of architecting provider-agnostic platforms and multiplying the teams around them.

SELECTED IMPACT

- Designed MCP-based developer tooling that cut code analysis costs ~70% by feeding models precise, governed context instead of bulk source.
 - Architected a schema-as-guardrails platform that lets citizen developers generate code safely to company specification, enforcing secure tool and data access through approved containers and reusable patterns instead of one-off solutions.
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EXPERIENCE

Principal Engineer, Enterprise Systems Engineering · Nike, Inc.

Nov 2021 – Present · Beaverton, OR

- Set enterprise direction for applied AI practices: model selection, retrieval strategy, evaluation and experimentation, MLOps, and responsible AI and model governance for production use.

- Architected a schema-as-guardrails platform that lets citizen developers generate code to company specification safely, enforcing secure tool and data access through approved containers, platforms, and reusable patterns rather than one-off solutions.
- Designed MCP-based developer tooling (a symbol-index server) that reduced code analysis costs by ~70% by feeding models precise, governed context instead of bulk source.
- Maintained and operated internally-hosted LLM inference infrastructure (vLLM) at enterprise scale, serving internal chat and code-generation workloads.
- Built the framework for enterprise Microsoft Copilot adoption, including Copilot Cowork and Copilot Studio.
- Multiplied teams through architecture reviews, reusable patterns, and mentorship across engineering organizations.

Senior Engineering Manager · Nike, Inc.

Mar 2018 – Nov 2021 · Beaverton, OR

- Led the Release Engineering Core team (6 developers, systems engineers, and architects) and its Agile process; owned the global retail release platform.
- Spearheaded quality efforts for high-demand ("high-heat") sneaker releases; founded an internal engineer training initiative to grow team capability.

Lead DevOps Engineer · Nike, Inc.

Apr 2017 – Mar 2018 · Beaverton, OR

- Architected a containerized, cloud-provider-agnostic global release management platform (Azure, AWS, and datacenter deployments) and handed it off cleanly to the owning team.
- Designed a global package distribution system that cut deployment time from 9 days to 1 hour, removing an infrastructure bottleneck and raising release velocity.

DevOps Engineer · Nike, Inc.

Aug 2015 – Apr 2017 · Beaverton, OR

- Designed a global retail testing methodology (Ansible + Nutanix) that reduced lab creation from 1 week to 1 hour and release testing from two weeks to under one

business day.

- Used infrastructure-as-code to guarantee test-environment integrity; helped other teams automate daily work with Ansible and Python.

Service Virtualization Engineer · Nike, Inc.

Jan 2015 – Aug 2015 · Beaverton, OR

- Built company-wide CA Service Virtualization training and processes, eliminating ~\$1M/month in infrastructure spend.

Systems Administrator · Performance Health Technology

Mar 2014 – Jan 2015 · Salem, OR

- Maintained the company datacenter (Nutanix Acropolis, Meraki networking, Nagios) and mentored junior administrators and developers.

Helpdesk Manager · Allegheny Technologies Incorporated

Oct 2012 – Mar 2014 · Albany, OR

- Supported 2,000+ end users across 5 remote sites; built and deployed systems; mentored technicians and interns.

Armory Chief · United States Marine Corps

Jan 2009 – Oct 2012 · Jacksonville, NC

- Accountable for \$19M in weaponry and electronics; developed and delivered training to 40,000+ Marines; mentored 15 junior Marines into leadership roles.

PROJECTS

Synaptic Drift: governed context retrieval for LLM agents

open source · in active development

github.com/trydydd/synaptic-drift

- Retrieval-augmented generation (RAG) system serving verifiable, governed context to agents over MCP with schema-enforced tool contracts; ~80% token reduction on documentation/context retrieval in testing to date.
- Validated by end-to-end task success: building working functionality against live, unseen library docs using a 9B model, so retrieval quality couldn't be masked by model capability. Sub-21ms P95; cryptographic content verification and lifecycle governance.

Vamp: schema-as-guardrails platform for citizen developers

personal · in active development

- Lets citizen developers write and ship code to company specification safely, enforcing secure tool and data access through schema-defined guardrails instead of manual review.

COMMUNITY

Cofounder

Oak Swale Acres

2018 – Present

[instagram.com/oakswaleacres](https://www.instagram.com/oakswaleacres)

- Family farm investing in community food security; raise livestock and donate 300–400 lbs of meat annually to local food pantries and individuals in need.

Founder

Slime Mold Grappling Club

2023 – Present

slimemoldgrappling.com

- Publish free, structured submission-grappling curriculum and coaching resources; donate equipment and consultation to clubs that don't charge dues.

SKILLS

Applied AI

Large language models (LLMs) · Agentic and multi-agent systems · Model Context Protocol (MCP) · Retrieval-augmented generation (RAG) · LLM inference serving (vLLM) · Model evaluation & experimentation · Prompt & guardrail design · Cost optimization & inference efficiency · Responsible AI & model governance · MLOps · Model pretraining

Architecture and Leadership

Enterprise AI architecture · Platform architecture · Build-vs-buy analysis · Technical direction & standards · Mentorship · Cross-functional collaboration · Risk management · Agile

Languages

Python · Bash · PowerShell

Platforms and Infra

Azure · AWS · Docker · Kubernetes · Datacenter · Nutanix · Ansible · Jenkins · Git/BitBucket · CI/CD · Infrastructure-as-Code

EDUCATION & HONORS

- B.A., Thomas Edison State University (2024)
- A.S., University of South Carolina (2006–2008)
- Navy and Marine Corps Achievement Medal