

Jesse Lopez

Founder & Principal Engineer, Slopey Industries LLC

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Available for contract / fractional / federal work

SUMMARY

Senior software/systems engineer and U.S. Navy veteran (AEGIS) with 10+ years shipping production systems across AI/automation, cloud & DevOps, media streaming at scale, and embedded/hardware. Founder of Slopey Industries (Service-Disabled Veteran-Owned Small Business).

CORE SKILLS

Agentic AI & Automation · Cloud / DevOps · Full-Stack (Web & APIs) · Video / Streaming Pipelines · Industrial Automation · Robotics / Mechatronics · Embedded (STM32/ESP32) · PCB & Electronics · IoT / Edge · Systems Integration · Defense Networking (AEGIS)

CERTIFICATIONS

- SDVOSB — SAM registered (UEI R4NHRTYAG3K3 · CAGE 168X9)
- M.S. Computer Science — National University
- U.S. Navy AEGIS Fire Controlman (FC) — 2-yr advanced program

PROFESSIONAL EXPERIENCE

Owner & Principal Engineer — Slopey Industries LLC

Jun 2025 – Present

Layton, UT

- Founded a veteran-owned tech consultancy focused on AI, automation, and full-stack engineering for SMB and enterprise clients.
- Registered as a federal contracting entity (SDVOSB) to pursue set-aside opportunities.
- Designs and deploys containerized AI/LLM workloads (Docker, Kubernetes) across local GPU rigs and cloud.
- Builds end-to-end solutions: Go/Python backends, TypeScript/React frontends, IoT/edge devices.

Senior Software Engineer — Rockbot

Sep 2024 – Jun 2025

- Built cross-platform systems for in-venue music, audio messaging, and media playback (web, mobile, embedded).
- AI lyric-analysis engine (Python, Go) to flag explicit content; GCP TTS neural-voice integration (Go).
- Deployed backend services on GCP: GKE, Cloud Build, IAM, GCS, Terraform.

Senior Software Engineer — Pluto TV / Paramount

May 2022 – Sep 2024

- Architected a video-quality platform using Netflix VMAF (Python, Go) for perceptual scoring and bitrate optimization across HLS/DASH.
- Built TensorFlow ML pipelines + Go REST backend (Ascent) on GCP/AWS; manifest-validator microservice improving playback across Roku/Fire TV/web/mobile.
- Automated CI/CD (GitHub Actions) with secure Docker deploys to AWS ECR/ECS.

Software Engineer III — PDF Solutions

Jul 2017 – May 2022

- Helped secure a \$20M+ contract via a proof-of-concept machine-vision inspection driver for a major manufacturer.
- Developed SDK integrations, machine interfaces, and test suites for industrial equipment and factory automation.
- Modernized multithreaded C# WinForms/WPF automation; migrated legacy .NET to Linux EC2.

Equipment Engineer — IM Flash Technologies

Jan 2010 – Jan 2016

- Industrial robots and manufacturing equipment in high-volume production; SPC + SQL to improve uptime and maintenance scheduling.

AEGIS Networking Technician Supervisor — U.S. Navy

Fleet Service

- Mission-critical shipboard networks: Cisco routers/switches/firewalls, VLAN segmentation, DHCP, site-to-site IPSec VPNs.

SELECTED PROJECTS

- Slopey MCP Server & Agent Fleet** — one MCP server (~40 tools) for every AI client; multi-GPU rig serving local LLMs (ollama/vLLM).
- On-Prem RAG** — air-gapped RAG for regulated/federal workloads.
- VMAF Video Platform** — perceptual scoring at Pluto/Paramount scale.

EDUCATION

- M.S. Computer Science — National University (2019)
- B.S. Computer Science — National University (2017)
- A.S. — Utah State University (2012)
- U.S. Navy AEGIS FC School (FCC/FCA), 2-yr (2010)