

Avery Fernandez

FOUNDING ENGINEER | RUST, CLOUD & ML SYSTEMS

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Prefers Las Vegas roles or Nevada-compatible remote; open to Utah relocation for an exceptional role and compensation package.

PROFESSIONAL SUMMARY

Founding engineer with startup and consulting experience, plus university research work from 2021 to 2025. Builds Rust desktop applications, multi-tenant cloud platforms, and computer vision/ML systems for CAD/GD&T workflows.

EXPERIENCE

F4 Industries (Y Combinator S25) | Founding Engineer **Sep 2025 - Present**

- Led development of F4's production Rust/Dioxus Windows application, shipping PDF/CAD ingestion, multi-page review, redlining, and reporting workflows.
- Improved large-batch document processing through repeatable benchmarking, targeted Rust optimizations, and correctness checks with explicit variance tracking.
- Contributed to a multi-tenant cloud platform and deployment workflows supporting secure customer environments and reliable rollbacks.
- Developed OpenCV and ONNX Runtime pipelines for drawing segmentation and symbol recognition, plus model packaging, labeling, and validation tools.
- Delivered customer onboarding and commercial activation workflows spanning subscriptions, access, legal acceptance, and team setup.
- Automated Windows builds, installers, in-app updates, asset verification, and smoke tests across CI and cloud build systems.

Pariveda | Consultant **Jun 2025 - Sep 2025**

- Delivered enterprise billing and tenant-administration workflows in a React/TypeScript Nx application on AWS; became the client's recurring point of contact for follow-on development.

University of Alabama Libraries | Team Lead, Software Engineer (University research) **Oct 2021 - May 2025**

- Built a catalog-similarity engine that searched 2.4M books in under 15 seconds.
- Led engineering across 20+ research projects, delivering APIs, OCR and text-mining pipelines, PubMed analysis systems, and interactive dashboards.
- Developed and deployed a Flask/OpenAI RAG chatbot using embeddings from the library website, then built a local FastAPI/llama.cpp service for privacy-sensitive Mixtral and Llama 3 use.
- Led 70+ workshops on Python, Git, APIs, AI, embedded systems, and HPC; authored 20+ API recipes and consulted with 10+ faculty teams.

EDUCATION

The University of Alabama | B.S. in Computer Science **May 2025**

1st Place, PNC Fintech Challenge (2024): Built a Flask/OpenAI/SQL budgeting assistant.

TECHNICAL SKILLS

Languages: Rust, Python, TypeScript, SQL

Frameworks & APIs: Dioxus, React, FastAPI, Flask

Computer Vision & ML: OpenCV, ONNX Runtime, OCR, LLM systems, RAG

Cloud & DevOps: GCP, AWS, Cloud Run, Terraform, Firestore, GitHub Actions, Cloud Build, CI/CD

Platforms & Domain: Windows desktop, PDF processing, CAD, GD&T, engineering drawings