

PAUL BLAKE

Spokane, WA • paul-blake.com • github.com/gwaihirf22 • contact via paul-blake.com

SUMMARY

Full-stack developer with an unusual path: seven years as an FAA-certified aircraft mechanic and maintenance operations controller, now building production software. Self-taught through Harvard's CS50x and intensive shipped work — production web applications in TypeScript, React, Next.js, and PostgreSQL, and a ~48,000-line Python application backed by 1,500+ unit tests in CI, built using AI-assisted development (Claude Code) with every change reviewed and validated. Aviation built the habits that make software reliable: exact documentation, methodical root-cause debugging, and calm execution when something critical is down at 2 a.m.

TECHNICAL SKILLS

Languages: TypeScript, JavaScript, Python, SQL, C
Data: PostgreSQL, SQLite, REST APIs, JSON
DevOps: Docker, GitHub Actions CI/CD, Linux servers
LLM APIs: OpenAI in production; prompt design

Frameworks: React, Next.js, Node.js/Express, Flask
Testing: pytest (1,500+ unit tests), CI automation
AI Tooling: Claude Code (agentic, daily); Cursor IDE
Systems: self-hosting, Proxmox, networking

SOFTWARE PROJECTS

Loom — Real-Time Computer-Vision Assistant (Python)

github.com/gwaihirf22/loom_AOE

- Live build-order assistant for Age of Empires II that reads the game's HUD from screen capture several times per second (OpenCV / NumPy) and drives an on-screen overlay from real game state.
- ~48,000 lines across ~50 modules with 1,500+ pytest unit tests in GitHub Actions CI — built in weeks by working agentially with Claude Code, with every AI-generated change reviewed and validated against the suite; platform-specific capture backends chosen through measured performance profiling.

Neighborly — Full-Stack Community Platform

neighborly-community.com

- Production community platform — authentication, friend connections, messaging, listings, reservations, location-based discovery, admin dashboard — in TypeScript, React, and Next.js 14 over REST APIs and PostgreSQL; deployed with Docker and operated live since launch.

Lion-Tails — LLM-Integrated Storytelling App

github.com/gwaihirf22/Lion-Tails

- Full-stack app generating personalized stories for young readers via the OpenAI API — prompt design with age-appropriate content controls, per-user limits, session authentication, and role-based admin — React 18 / TypeScript over a PostgreSQL schema of my own design.

paul-blake.com — This Site & Self-Hosted Infrastructure

paul-blake.com

- Next.js site with an MDX content pipeline, third-party API integrations (email subscriptions, GitHub Discussions comments), and HTML5 Canvas browser games; self-hosted in Docker on a Linux server I administer, deployed through automated GitHub Actions CI/CD.

PROFESSIONAL EXPERIENCE

Maintenance Operations Controller / AOG Mechanic

Dec 2021 – Present

FEAM Maintenance & Engineering • Spokane, WA

- Own time-critical aircraft-on-ground events end to end in a safety-critical, FAA-regulated domain — triaging faults, coordinating diagnosis and logistics nationwide, and communicating clearly in real time with airline customers and leadership.
- Diagnose electrical, avionics, and mechanical faults to root cause on Boeing, Airbus, and CRJ aircraft; author FAA-compliant documentation daily, where accuracy and traceability are non-negotiable.
- Work fully remotely and independently across years of on-call rotations, managing competing priorities without direct supervision.

Volunteer IT Technician

2020 – Present

Faith Bible Church • Spokane, WA

- Maintain local servers, LAN, Microsoft 365, Active Directory, and user accounts as an ongoing volunteer service.

Owner / Operator — 3D Printing & Design

2022 – Present

3D Printing the World (Etsy) • Spokane, WA

- Design and produce custom precision models using CAD (SolidWorks, Onshape, Blender); run the full e-commerce operation independently.

EDUCATION & CERTIFICATIONS

CS50x: Introduction to Computer Science — Harvard University (edX)

Certificate earned

- C, Python, SQL, HTML/CSS, JavaScript, data structures, and memory management; final coursework in Python web application development with Flask.

B.A. — Minor in Advanced Aviation Maintenance

2018

Moody Bible Institute / Moody Aviation • Spokane, WA

FAA Airframe & Powerplant License (A&P) • AWS Certified Cloud Practitioner — in progress