

Noah Martino

Lead Software Engineer | Backend & Product Engineering

Pittsburgh, PA · Open to relocation · 412-304-6414 · personal.boredhero@gmail.com

[linkedin.com/in/noah-martino](https://www.linkedin.com/in/noah-martino) · github.com/boredhero

SUMMARY

Founding backend engineer who helped take Freedom Gateway from its first kiosk prototype to approximately 3,000 active internet-connected kiosks. Lead backend and infrastructure work across financial APIs, fleet tools, Linux systems, and hardware integrations; critical APIs maintain 99.9% uptime.

EXPERIENCE

Freedom Gateway — Pittsburgh, PA

Lead Software Engineer | May 2024–Present · Full-time employee

Software Engineer, Independent Contractor | May 2023–Apr 2024 · Part-time during academic terms; full-time during breaks

Software Engineer, Independent Contractor | Oct 2019–Jul 2021 · Part-time during academic terms; full-time during breaks

- Co-built the first kiosk MVP in 2019, writing its backend services, customized Linux image, installer, and update system. Designed bandwidth-aware degradation that pauses video first, reserving unstable links for transaction and device-control traffic.
- Trained a YOLO camera-position classifier on 5,000+ human-reviewed kiosk images, running inference in under 30 ms on kiosk IoT hardware.
- Lead architecture for the core backend and built much of the surrounding fleet, compliance, installer, device-control, and remote-support software. Deploy several times per week and provide technical direction on a 5–9-engineer team.
- Built mobile-first tools for fleet operations, compliance review, and customer account self-service. Replaced spreadsheet workflows with explicit rules and audit history, and added OTP authentication, encrypted PII, document capture, and browser-based VNC/SSH.
- Protected money-moving services from duplicate and mismatched transactions using idempotency checks, atomic identifiers, transaction binding, tamper-evident audit history, and PostgreSQL integration tests.
- Migrated 60 repositories and their CI/CD pipelines from Bitbucket to GitHub without interrupting development or production releases, preserving branches, tags, and history. Standardized security scanning and Docker Swarm releases with automatic rollbacks.
- Saved more than \$3,000 per year by replacing Tailscale with a self-hosted fleet access system. Built its Python/PostgreSQL WireGuard control plane and Rust SSH/SCP/VNC CLI, with Teleport fallback, peer recovery, WebAuthn/2FA, and audit trails.
- Built 20+ reusable agent workflows for code review, documentation, and kiosk diagnosis, grounding agents in internal code and documentation while retaining human control of architecture, testing, secrets, and production approval.

SELECTED PROJECTS

Plant Camera System · Python, Flask, React, HLS.js, FFmpeg, Docker, Linux

Designed a two-stage filter that selects the brightest per-pixel samples from nearby frames to remove 120 Hz LED/rolling-shutter banding without ghosting, using approximately 64% less CPU than the original 31-frame filter. Built the live HLS, timelapse, device-identity, and recovery system around it.

More Fuels Mod · Java, Minecraft Forge

Built and maintained an open-source mod across 13 Minecraft versions, reaching more than 272,000 verified CurseForge downloads.

TECHNICAL SKILLS

Languages: Python, TypeScript/JavaScript, Java, Rust, SQL, Bash

Application & Data: FastAPI, Flask, Angular, React, SQLAlchemy, PostgreSQL, Redis, Celery, Unicorn

Platform: Linux, Git, Docker, Docker Swarm, GitHub Actions, WireGuard, Teleport, OpenTelemetry, SigNoz, systemd, Nginx

Practices: Distributed systems, REST APIs, CI/CD, observability, application security, legacy/hardware integration, agentic development

EDUCATION

University of Pittsburgh — Bachelor of Science, Digital Narrative and Interactive Design, Apr 2024

Interdisciplinary computing program in software development, information science, human-computer interaction, and design.