

# **Jonathan Zavialov**

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## **EDUCATION**

### **Pennsylvania State University**

2022 – Present

Pursuing B.S. Degree in Computer Science (2026), minors in Mathematics and Engineering Leadership Development

- Current GPA of 3.6, Dean's List

## **TECHNICAL SKILLS**

**Languages:** Python, Java, C, C++, JavaScript/TypeScript, SQL, Bash

**Frameworks & Libraries:** React.js, Node.js, Spring Boot, PyTorch, TensorFlow

**Infrastructure & Cloud:** AWS (EC2, Lambda, S3), Docker, Kubernetes, Terraform, Linux/Unix

**Tools & Platforms:** Git, Jira, PostgreSQL, PostHog, Firebase, n8n, Google Analytics, Postman

**Observability & Reliability:** Structured logging, metrics, tracing, production debugging, incident-driven iteration

**Security:** Authentication & authorization (OAuth, JWT), secrets management, basic threat modeling

## **PROFESSIONAL EXPERIENCE**

### **Magna-Power Electronics – Software Engineer Intern**

2023 – 2025

- Owned and shipped multiple production systems end-to-end across three consecutive summers, working from vague requirements to deployed software used in daily operations in a hardware and operations-critical environment.
- Designed and led a warehouse fulfillment platform: built an asynchronous FastAPI service on top of a production ERP database, modeled and optimized relational data, generated optimal pick-pathing, and drove deployment, stakeholder alignment, and hardware selection.
- Improved engineering quality and velocity by standardizing code style and strengthening the CI/CD pipeline through continuous integration, adding automated checks and guardrails that reduced breakages and made deployments more reliable across teams.

### **Penn State Daily Collegian – Business Insights Director**

2023 – Present

- Led and scaled an engineering/data team with full ownership over analytics and growth products for a high-traffic digital news org, setting roadmap, unblocking execution, and shipping production systems used daily by editors.
- Designed and shipped an analytics platform aggregating social, web, and ads data; applied ML-assisted analysis and built React dashboards translating raw metrics into actionable insights that increased engagement and ad revenue.
- Launched a gaming product line, building mobile-first editorial games, instrumenting funnels with PostHog, and iterating via A/B testing to increase time-on-site and article click-through from real user behavior.

## **LEADERSHIP EXPERIENCE**

### **PSU Advanced Vehicle Team, SAE AutoDrive Challenge – Vehicle Test & Simulation Engineer**

2025 – 2026

- Designed and validated autonomous driving routines by developing simulation frameworks, performing scenario-based testing, and analyzing algorithm performance metrics.
- Architected comprehensive test tracks and validation environments by modeling realistic urban layouts, generating edge-case scenarios, and coordinating physical/digital transitions.

### **Blockchain@PSU – President**

2022 – 2023

- Led and grew a student organization by setting direction, recruiting members, and coordinating cross-functional efforts across technical, business, and outreach teams.
- Organized and ran technical workshops, speaker events, and project initiatives, translating complex concepts for mixed technical/non-technical audiences and keeping contributors aligned and motivated.
- Acted as the primary point of leadership and communication, managing stakeholders, resolving conflicts, and driving initiatives from idea to execution in a volunteer-driven environment.

### **Personal Project – Locatia**

2024

- Founded and built an early-stage product end to end, owning problem discovery, product decisions, system architecture, and implementation; shipped quickly and iterated based on real usage rather than assumptions.
- Designed and implemented the full stack (React frontend, Firebase backend), prioritizing speed, clear UX, and instrumentation to understand user behavior and guide iteration.
- Used the project as a founder experiment, deliberately testing ideas, scoping aggressively, and making hard calls about what to build next, reinforcing instincts around speed, leverage, and killing ideas that don't justify more time.