

# Garrett G. Fincke

Full-stack developer specializing in clean code, scalable systems, and modern web/mobile architecture  
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## Education

### The Pennsylvania State University

*Bachelor of Science in Computer Science*

Aug 2021 – Dec 2024

*University Park, PA*

## Experience

### Scale AI

May 2024 – Jul 2025

*Software Engineering Contractor*

*Remote*

- Built internal tooling and harnesses to evaluate LLM-generated code for top-tier technology clients
- Automated compilation, execution, linting, and test orchestration to measure pass@k and correctness
- Designed training/eval data pipelines (schema versioning, validation, deterministic sampling) that replaced manual review with scripted checks and reduced turnaround time
- Instrumented metrics and built dashboards (syntax/style error rates, test failure modes); triaged failures with research/eng partners to accelerate model iteration cycles
- Enforced schema normalization and deduplication at ingest via scripted checks for data quality assurance

### Pennsylvania State University

Aug 2024 – Dec 2024

*CMPSC 475 Learning Assistant (iOS / Applications Programming)*

*University Park, PA*

- Mentored students in iOS/mobile application development using Swift and SwiftUI
- Collaborated with faculty to tailor instruction based on student progress and technical challenges

### Pink Ocean Collectibles

Apr 2020 – Present

*Owner / Operator*

*Online E-commerce*

- Build and operate multi-channel storefront with 2000+ sales, \$75k+ lifetime profit, and 100% positive feedback

## Projects

### Hopper — *Java, Go, Spring Boot/Security, PostgreSQL, Flyway, React, TypeScript, Gradle*

Cross-platform inventory management for e-commerce sellers; centralizes listings and orders across marketplaces.

- Design a marketplace-agnostic domain; enforce unique SKU per marketplace and referential integrity
- Build inventory sync workflow that computes stock deltas from local events and reconciliation passes
- Architect hybrid system with Java/Spring Boot orchestration and Go microservice for platform interactions

### TrackBasket — *TypeScript, Python, Supabase, Next.js, React, OpenAI, PostgreSQL, Docker*

Deployed price tracking platform monitoring 30k+ products across 4 major retailers with AI-powered features.

- Developed chat-to-basket feature using OpenAI API that converts natural language into structured baskets
- Designed comprehensive backend infrastructure with Edge Functions, fuzzy search, and real-time notifications

### Minecart — *TypeScript, Node.js, Docker, Docker Compose, RCON, AWS (EC2, SSM, CloudWatch)*

Discord bot that manages Minecraft servers across local Docker and AWS EC2 instances

- Built provider abstraction (Docker+RCON vs EC2+SSM) for seamless swap between local and cloud hosting
- Server properties editor (w/ RAM auto-calc); Health monitoring via SSM/CloudWatch; drift detection
- SSM-only backups/log retrieval, robust locking/error handling, modular ESM TypeScript with lean IAM

### SwimMate — *Swift, SwiftUI, HealthKit, WatchKit, Swift Charts, WatchConnectivity*

Native iOS/watchOS app for swimmers with comprehensive tracking and Apple Watch integration

- Built custom components using HealthKit and SwiftUI for workout creation and performance visualization
- Connected iOS app to Apple Watch for real-time workout data tracking and displaying rich metrics
- Support both pool and open-water swims with GPS distance tracking and comprehensive HealthKit integration

## Technical Skills

**Languages:** Python, Swift, JavaScript/TypeScript, Java, Kotlin, Go, C, C++, SQL, Solidity, Verilog

**Frontend & Mobile:** React, Next.js, SwiftUI, UIKit, Tailwind CSS, HealthKit, Core Data

**Backend & Data:** Django, Node.js, Spring Boot, FastAPI, PostgreSQL, Redis, Supabase, REST APIs

**AI/ML:** OpenAI/Anthropic APIs, PyTorch, TensorFlow, Keras, scikit-learn, pandas, NumPy, Jupyter

**Cloud & DevOps:** AWS (EC2, SSM, CloudWatch), Docker, Docker Compose, GitHub Actions, CI/CD, Vercel