# Garrett G. Fincke

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Full-stack developer specializing in scalable systems and modern web/mobile architecture

#### **EDUCATION**

## The Pennsylvania State University

Bachelor of Science in Computer Science

University Park, PA
December 2024

### **EXPERIENCE**

#### Scale Al - Remote

Contract | May 2024 - Present

Python, Typescript, Javascript, PostgreSQL, Java, C

- Contributed to Al-based projects for leading technology companies including Google, Meta, & OpenAl
  - Example: Contracted to support development of <u>Google's Stitch UI coding design tool</u>, improving the tool's AI-generated interface development capabilities.
- Evaluated and quality-tested Al-generated code across numerous languages to enhance logical reasoning.
- Designed contextual frameworks and curated high-quality datasets focused on clean, optimal solutions.
- Created evaluation metrics that directly contributed to improving code generation capabilities of Al models.

#### **PROJECTS**

## TrackBasket | GitHub, Live App

December 2024 - Present

TypeScript, Python, React/Next.js, Supabase, PostgreSQL, Swift

- Deployed a full-stack price tracking platform monitoring 30k+ products across major retailers
- Implemented automated data normalization pipeline with category standardization, product deduplication, and brand name normalization to ensure consistent cross-retailer product matching
- Engineered Al-powered natural language basket builder using OpenAl API that converts natural language queries into structured shopping baskets, integrated with Supabase edge functions for real-time database updates
- Developed sophisticated web crawling system with CAPTCHA solving, anti-bot countermeasures, intelligent rate limiting, and concurrent processing of 10+ simultaneous crawler workers
- Built scalable backend infrastructure including Edge Functions, PostgreSQL with advanced indexing, UPC-based cross-retailer matching, Row Level Security, and real-time notification system

#### SwimMate | GitHub

Feb 2024 - June 2024, May 2025 - Present

Swift, SwiftUI, HealthKit, WatchKit

- Designed native iOS/watchOS swimming app with MVVM design pattern supporting real-time workout tracking and cross-device synchronization for 100+ structured swim sets
- Integrated Apple Watch features using HealthKit and WatchKit to capture in-pool metrics and deliver premade swim sets to users
- Built a custom workout entry system, lap timer, and historical performance charting tools using SwiftUI
- Implemented seamless iPhone-to-Watch set delivery and bi-directional real-time workout data synchronization

#### **TECHNICAL SKILLS**

- Programming Languages: Python, JavaScript/TypeScript, C, Swift, Java, HTML5, CSS3
- Frameworks & Libraries: Django, Node.js, React, Next.js, pandas, NumPy, scikit-learn, PyTorch, TensorFlow, matplotlib, seaborn, SwiftUI, UIKit
- Database Technologies: SQL (SQLite, PostgreSQL), Firebase/Firestore, Django ORM, Supabase
- Backend/DevOps: REST APIs, Redis, Celery, Docker, Git, GitHub Actions