# **Walter Shewmake**

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## ♣ Profile

For me, code has always been about turning ideas into tools that actually work for people.

#### **Major Technical Skills:**

- Full-stack engineering (5+ yrs): React, React Native (Expo), Next.js, TypeScript, PostgreSQL.
- Mobile app & game development (5+ yrs): production-grade apps and games for iOS & Android
- Al & data systems (2 yrs): machine learning classification, vector search, and real-time data pipelines.
- Cloud & DevOps (2 yrs): CI/CD, Docker, GitHub Actions, AWS—automated testing and deployment.

I'm a Senior Product Engineer at beatBread, where I design applications that connect music, finance, and Al. Along the way, I've co-founded startups, engineered products from the ground up, and contributed to Al research on classification and vector search algorithms at Utah Tech University. My recent work in mobile product design and Al-driven motion intelligence has strengthened my focus on building technology that improves human health, performance, and decision-making.

Recently, I led the development of OrthIQ, an Al-driven motion-intelligence platform created at CalHacks 2025. OrthIQ pairs a wearable resistance sensor with real-time biomechanical analysis to guide physical therapy patients through precise movement feedback, merging mobile interaction, data science, and human recovery.

I've built and shipped production-grade React Native (Expo) apps, most notably LazyRep, a full door-to-door sales platform deployed to iOS and Android. That project taught me how to steward mobile products end-to-end, from local data sync and analytics to continuous deployment and feature iteration after launch.

My background in philosophy, math, and computer science shapes how I work: break things down, question assumptions, and create systems that balance technical rigor with human context.

## **▲** Profile

Whether building internal Al tools or mobile health apps, I care most about creating software that quantifies progress, improves well-being, and makes data genuinely meaningful for people. Always learning, always building, always improving.

# Work Experience

➡ 08/2025 - PRESENT
♡ ST GEORGE, UTAH, UNITED STATES
Senior Product Engineer
beatBread

- Senior engineer on internal and customer-facing tools connecting music, finance, and AI, enabling smarter funding decisions for independent artists and labels.
- Architect and maintain core applications within a unified monorepo, optimizing performance, scalability, and developer experience.
- Refactored the company's authentication system, resolving critical security flaws and establishing new standards for data integrity and access control.
- Collaborate with leadership, design, and data science teams to build analytics dashboards, internal tools, customer products, and real-time financial data visualizations.
- Defined best practices for CI/CD, code review, and automated testing across the engineering team, improving release reliability and iteration speed.

Key technologies: React, TypeScript, Next.js, PostgreSQL, tRPC, Python, CI/CD (GitHub Actions, Docker), AWS

➡ 01/2024 - 08/2025
♥ ST GEORGE, UTAH, UNITED STATES
Product Engineer
beatBread

# Work Experience

台 05/2023 – 01/2024 ② ST GEORGE, UTAH, UNITED STATES Technology Associate

beatBread

台01/2023 - 05/2023 ② ST GEORGE, UTAH, UNITED STATES Technology Intern beatBread

- Built and launched a cross-platform React Native (Expo) app for door-to-door sales teams, deployed to iOS and Android with automated over-the-air updates.
- Designed and implemented Al-driven prospecting and automated follow-up workflows, improving sales-rep efficiency through intelligent lead recommendations.
- Engineered a multi-tenant B2B architecture with secure role-based access control (RBAC), real-time data sync, and seamless onboarding for client organizations.
- Integrated real-time analytics and offline caching to ensure reliable field performance under variable network conditions.
- Directed the full product lifecycle from technical architecture and UI design to deployment, monitoring, and iteration delivering a scalable, maintainable codebase.

Key technologies: React Native (Expo), TypeScript, Next.js, tRPC, PostgreSQL, AWS, CI/CD (EAS, Docker)

**台**03/2022 **②** ST GEORGE, UTAH, UNITED STATES **Founding Member Shewmake Design** 

- Designed, developed, and maintained custom websites and web platforms for clients across multiple industries.
- Built complete e-commerce solutions, team sports portals, and professional marketing sites tailored for brand identity and performance.
- Delivered scalable hosting, SEO optimization, and ongoing maintenance, improving site visibility, reliability, and load speed.
- Managed end-to-end client projects from requirements gathering and UX design to

# Work Experience

deployment and analytics tracking.

Key technologies: Next.js, React, TypeScript, PostgreSQL, Tailwind, Vercel

台01/2024 - 08/2024 ② ST GEORGE, UTAH, UNITED STATES Al Intern Utah Tech University

- Designed and implemented an arbitrary hierarchical classification system, achieving 90 %+ accuracy while processing 50+ requests per second with < 400 ms latency.
- Developed high-dimensional vector embeddings and similarity-search algorithms to enhance data retrieval and taxonomy mapping.
- Optimized model architecture for scalability, precision, and throughput, contributing to published AI research within the university's Center for AI/ML.

Key technologies: Python, NumPy, Pandas, PostgreSQL, vector databases

### Education

**⊟** 08/2025 − 05/2029

# Philosophy | Bachelor of Science - BS University of Utah

Philosophy Major + Math Minor

**台** 08/2021 - 05/2025

High School Honors Diploma Snow Canyon High School

# **Y** Awards

11/202<u>4</u>

# Utah CTE nominee for the US Presidential Scholar Award Utah State Board of Education CTE department

Selected by the Utah State Board of Education CTE department to be nominated to the US Department of Education for the Presidential Scholar award in CTE, making me the first person in Washington school district history to be nominated.

### Awards

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# 2024-2025 Sterling Scholar Winner in Computer Technology Washington County School District

Being named the 2024-2025 Sterling Scholar in Computer Technology is a meaningful recognition of my passion for problem-solving, technology, and innovation.

Throughout my journey in computer science, I've been driven by curiosity—whether building my first coding projects, developing software to support businesses, or mentoring others who are just starting out. This award reflects not just technical achievements, but also the value of continuous learning and collaboration.

I'm grateful for the support of my mentors, teachers, and peers, and I look forward to continuing to explore, build, and contribute to the field.

#### **∺** 03/2024

### 3rd Place - Advanced Division Utah Tech Department of Computing Annual Programming Contest

Colby Starr and I competed against 12 other teams in the advanced division (individuals categorized as having completed CS-3510 or equivalent experience) and took 3rd place in the 4.5-hour contest. Overall, it was a great experience, and I'm looking forward to competing again next year!

#### **†** 11/2022

# 2nd Place - Industry Division Southern Utah Code Camp

Code Camp is a 24-hour programming competition that takes place once a year on November 11th. There are a couple of different industries, the Industry division being the highest level. Industry teams consist of industry professionals from different computer science fields.

For the extra challenge, my team decided to participate in this division. We ended up taking 2nd place!

### □ Certificates

#### 苗 05/2021

# MTA: Introduction to Programming Using HTML and CSS - Certified 2021 Microsoft

https://www.credly.com/badges/23bbeb2b-456c-472b-9bf8-16f2ff90c760? source=linked\_in\_profile

#### 🖰 05/2021

#### MTA: Introduction to Programming Using JavaScript - Certified 2021 Microsoft

https://www.credly.com/badges/bfa72f2f-bfbe-42a7-9978-219d8bfe1ade? source=linked\_in\_profile

#### **⊟** 05/2021

# MTA: Introduction to Programming Using Python - Certified 2021 Microsoft

https://www.credly.com/badges/43d5ddb8-b1e2-48a1-9123-d3f950883fad? source=linked\_in\_profile

#### 苗 05/2021

# MTA: Software Development Fundamentals - Certified 2021 Microsoft

https://www.credly.com/badges/427b1d7d-b984-4dd0-a13a-6633d1f20c26? source=linked\_in\_profile