



PATENT + PAPER

German utility patent & peer-reviewed AI paper on seizure prediction

SHIPPED

Co-founded OhMyTSS — an iOS app live on the App Store

RESEARCH

Causal inference on a 30k-person dataset; 2 papers in progress

EDUCATION

University of Illinois Urbana-Champaign

Aug 2024 – Dec 2026

B.S. Computer Science + Education (Learning Sciences)

GPA 3.80 / 4.00

James Scholar Honor, Grainger College of Engineering · Fall 2025 – Present

Massachusetts Institute of Technology

Summer 2023

Game Lab Summer School

Stanford AI4ALL

Summer 2020

Scholar — Computer Science & AI Research

TECHNICAL SKILLS

LANGUAGES

Python, C, C++, Swift, Java

BACKEND & DATA

SQLite, REST APIs, pandas, NumPy, real-time data pipelines

ML / AI

LLMs, PyTorch, TensorFlow, scikit-learn, WhisperX

TOOLS

Git, CI/CD, pytest, Linux, bash, Make, Valgrind, GDB

AWARDS

- AIME — 11/15 (2023)
- AMC 12 — Top 1%, 135/150 (2022)
- USACO Gold Division (2021–2022)

RESEARCH

Dept. of Educational Psychology, U Illinois

Spring 2026 – Present

Undergraduate Researcher — Causal Effect of College Education on SEB Skill Development

- Contributing to a study across a **30,000-person longitudinal dataset**, estimating the causal effect of college education on SEB skill development
- Supporting research design, data organization, and pipeline setup for Causal Forest + AIPW modeling; targeting peer-reviewed publication

Undergraduate Research Scientific Advancement (URSA)

Spring 2026

Undergraduate Researcher — LLM-Based Mathematical Equation Relation Extraction

- Completed **100+ annotations** on a mathematical derivation graph dataset; contributions support model training for LLM-based equation relation extraction; project targets conference publication

EXPERIENCE

Siebel School of Computing & Data Science, U Illinois

Aug 2025 – Aug 2026

Course Assistant — CS124 (Intro to Computer Science)

- Guide **300 students** through problem decomposition on assignments spanning data structures, algorithms, and programming
- Identify and address conceptual gaps through weekly office hours; translate complex technical concepts for diverse learning backgrounds

PROJECTS

OhMyTSS — iOS Fitness Analytics App (Swift)

Nov 2025 – Present

Co-Founder & Developer

LIVE ON APP STORE

- Integrated **Apple HealthKit** to ingest and process real-time wearable sensor streams, turning raw workout data into readiness and training-load insights with on-device, privacy-first architecture
- Diagnose user-reported issues, implement data parsing and validation fixes, and ship stability improvements to an active user base

Meeting Minion — AI Meeting Summarizer (Python)

Aug 2025 – Jan 2026

Team Lead & Developer, SSCDS

- Led full lifecycle development of a **production AI app with real users**: designed architecture, coordinated a cross-functional team, and deployed an end-to-end transcription + summarization pipeline
- Integrated a third-party LLM (Ollama) and WhisperX transcription with SQLite persistence; enforced engineering standards via CI/CD, PR reviews, and a pytest suite (**64+ tests, 100% pass rate**)

Seizure Prediction Wristband — Patented Device (C / C++)

2022 – 2024

Initiator & Team Lead

GERMAN PATENT

- Built a **real-time embedded ML pipeline**: ingested heart-rate and humidity sensor streams, engineered time-series features, and deployed an on-device classifier (cross-validated) for pre-seizure detection
- Managed the full project lifecycle from hardware prototyping to algorithm deployment; resulted in a registered **German utility patent and a peer-reviewed publication**

PUBLICATION & PATENT

PUBLICATION

Weng, Z. (2023). *Prediction and Recognition of Epileptic Seizures Based on Artificial Intelligence*. Highlights in Science, Engineering and Technology, 72, 1092–1098.

doi.org/10.54097/gp3axg67

PATENT

Weng, Zhiheng (2024). *Epilepsy Early-Warning Wristband*. German Utility Patent DE 20 2023 107 669; filed Dec 26, 2023; registered Jan 25, 2024.