THOMAS O. KANZ

tkanz@andrew.cmu.edu • contact@thomaskanz.com • ThomasKanz.com • GitHub: SunfishTK1

EDUCATION

Carnegie Mellon University — Pittsburgh, PA
Bachelor of Science in Artificial Intelligence — Expected May 2027
Selected Coursework: Introduction to Computer Systems, Matrices and Linear Transformations
Select Current Coursework: Introduction to Deep Learning, AI: Representation and Problem Solving
Warwick Valley High School — Warwick, NY
Valedictorian 105.41/100.00 — Completed June 2023

SKILLS & ABILITIES

Programming Languages: Python, C, Java, JavaScript, HTML/CSS; Excel, Word, PowerPoint; **Self-Taught Frameworks:**
FAISS API, OpenAI API, Streamlit API, Pinecone API, Next JS, React JS, MongoDB, Azure, AWS, Fast API, Milvus DB, Linux

EXPERIENCE

GroundForce Capital – AI Research Analyst and Strategist — August 2024 – December 2024
- Conducted in-depth research on AI technologies and developed strategic recommendations for integrating AI tools and software into GroundForce Capital's operations, focusing on enhancing efficiency and reducing costs.

Assurifai – Founding AI/ML Engineer Intern — May 2024 – July 2024
- Fine-tuned a custom machine learning model for extracting data from merged credit reports. Developed and deployed a RESTful API to manage concurrent requests to the ML service, successfully integrating it into the Assurifai backend.

PROJECTS

Atvida – AI and Web Powered Misinformation Detection Browser Extension — 12/2024
- Designed, implemented, and deployed full-stack browser extension that fact checks social media posts in real-time.

Nova Gen AI Hackathon 2024 – Velroi Intel – 2nd place out of 42 teams — 11/9/2024
- Built "Reverse Phishing" AI Agents that can investigate whether a commercial phone number is linked to a legitimate business or fraudulent operation, using the Twilio and Realtime OpenAI APIs.
- Utilized advanced LLM function calling capabilities to generate robust Scam Analysis PDF Reports based on call transcripts.

HackHarvard 2024 – Open Context -Won 'Best AI Application Built with Cloudflare' — 10/11/2024 – 10/13/2024
- Programmed a notes platform that creates a searchable semantic database for all data from across multimodal note formats.

Velroi Catalogs – AI & Semantic Search Course Catalog Project — July 2024
- Programmed a modern course catalog with semantic search capabilities and a Generative AI LLM driven AI assistant that can automatically adjust search parameters using function calling.

MeritAtlas by Velroi – Scouts BSA Merit Badge Search Engine Service Project — May 2024
- Built and distributed semantic search Merit Badge search engine from start to finish as a volunteer service project.

2024 TartanHacks – Graduate Student Assembly Campus Experience Award Winner — Pittsburgh, PA
- Built CarnegieGPT an intelligent search tool for answering questions related to disparate course and dining databases.

2024 AI EarthHack Hackathon Participant – The GenAI Competition — Virtual
- Built a functional front-end and back-end generative AI filtering system to evaluate circular economy business ideas.

OTHER EXPERIENCE

Project Olympus Startup Incubator– Customer Discovery Kickstart Program Participant — Pittsburgh, PA
- Completed 20 customer discovery interviews to understand existing market problems related to course catalog software.
- Speaker at Project Olympus' Annual Show and Tell 2024 Event, where I presented my startup Velroi's problem/solution pitch.

Sigma Eta Pi Professional Co-ed Entrepreneurship Fraternity – Carnegie Mellon University — Pittsburgh, PA
Head of Website Development and Founders Education Committee Member — January 2024 - present
- Designed, built, deployed, and maintain our website cmusep.com, adhering to branding guidelines.

Scotty Labs – Carnegie Mellon University — Pittsburgh, PA
Project Leader/Mentor : NLP AI Maps Group — September 2023 - present
- Actively leading a team of seven students integrating a function calling generative AI Natural Language Agent into the CMUMaps.com platform.
- Scotty's Course Recommender won the 'Best Demo Award' at the Scotty Labs Labrador Committee Demo Day, Fall 2023.

SELECTED AWARDS

***Perfect Score** on the 2022 AP CS Principles Exam, Earned Every Single Point Possible (Top 0.15% of Test Takers)
Valedictorian Award - Warwick Valley High School & Highest Four-Year High School Math, Science, and History Averages
Eagle Scout; AP Scholar with Distinction & NYS Seal of Biliteracy (Spanish)
National Hispanic Recognition Program Scholar & National Rural and Small Town Recognition Program Scholar
National Merit Scholarship Program Commended Student