Ethan Pan

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EDUCATION

University of Wisconsin Madison — Madison, WI
BS in Computer Science — GPA:3.87/4.0 — *Sep. 2024 – June 2027*

University of Rochester — Rochester, NY
BS in Computer Science — Dean's List — *Sep. 2023 – June 2024*

TECHNICAL SKILLS

Languages: Java (5 years), Python (2 years), C (1 year), JavaScript, HTML/CSS, RISC-V Assembly, CUDA
Developer Tools: Git, Docker, Google Cloud Platform, VS Code, Anaconda, Valgrind, QEMU, gdb, Cutter, angr
Relevant Coursework: Data Structures & Algorithms, Computation & Formal System, Computer Organization, Intro to AI

EXPERIENCE

Software Engineer — June 2024 – Aug. 2024
Coco Tech Co. — *Shenzhen, China*
- Worked on the application of language models in production; Developed an online AI-based slide creation assistant tool for smart building designers using **Python**, **Ollama**, and **React** frameworks. Successfully reduced slide creation time by 30%.
- Learned concepts of Retrieval-Augmented Generation (**RAG**), **LangChain**, and **prompt engineering** techniques.

Workshop Leader — Jan. 2024 – May 2024
University of Rochester — *Rochester, NY*
- Directed a diverse cohort of 12 students, allocating 6 hours weekly to instruct on **Java**, data structures, and algorithms.
- Designed the workshop with original content and supplemented with Leetcode problems and personalized tutoring to solidify comprehension, resulting in a 20% average grade increase.

Research Assistant — Nov. 2023 – Jan. 2024
Carnegie Mellon University in Qatar - SIGFUNSAI — *Remote*
- Managed, labeled, and cleaned over 2000 data points for Language Model fine-tuning, enhancing model performance by 10%
- Translated over 200 HumanEval test cases into **OCaml** to evaluate current models' performance on functional programming

Teaching Assistant — June 2023 – Aug. 2023
Litu Education — *Shenzhen, China*
- Assisted 12 students in subjects like AP Computer Science (**Java**) and more, leading to a 20% average grade increase.

PROJECTS

Exploring Artificial Intelligence in Interactive Gaming | *LLM, Unity, C#* — Dec. 2023 – Jan. 2024
- Created a 3D **Unity** demo game showcasing the integration of **language models** for real-time poetry generation based on player input, exemplifying the fusion of **AI** with **gaming**.

Cal-Glass: A Wearable Food Analysis Device | *Python (OpenCV), AI, HTML, 3D* — Nov. 2021 – Oct. 2022
- Led an **8-member** team to develop a wearable diet tracker using **computer vision** and AI, achieving **96.6%** accuracy. The project won a silver award at China's Think Big contest for its social impact.

LEADERSHIP / EXTRACURRICULAR

Wisconsin AI Safety Initiative - Member — 2024
- Join periodic discussions on AI safety, ethics, and policy and participate in panels on AI safety research.

UR Maker Club - Member — 2023
- Participated in weekly workshops, learning about Arduino, Raspberry Pi, 3D printing, laser cutting, and other maker skills.

Student Union - President — 2021
- Leading a team of **80+** members to organize school events, manage student affairs, and promote school spirit.

AWARDS

High School Mathematical Contest in Modeling (HiMCM) – Meritorious Award — 2021
- Developed a customized student job recommendation system using mathematical modeling in Matlab.

Journalism Education Association Youth Observation Communication – Excellent Award — 2020
- Conducted research exploring blind users' UX and difficulties with smart devices like mobile phones in modern society.