Yiyang (Ethan) Pan

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EDUCATION

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

University of Wisconsin Madison — Madison, WI
BS in Computer Science & BS in Electrical Engineering — *Sep. 2024 – June 2027*

TECHNICAL SKILLS

Languages: Java, Python, C, JavaScript, HTML/CSS, RISC-V Assembly, CUDA
Developer Tools: Git, Docker, Google Cloud Platform, VS Code, Visual Studio, PyCharm, IntelliJ, Clion, Unity

EXPERIENCE

Workshop Leader — Jan. 2024 – Present
University of Rochester — *Rochester, NY*

- Directed a diverse cohort of **12 students**, allocating **6 hours weekly** to instruct on **data structures, algorithms**, and **Java**. Addressed over **100+ queries**, supplementing with **personalized tutoring** to solidify comprehension. Resulting in a **20%** average grade increase, successfully aiding their academic progress.
- Engineered **interactive learning environments**, catalyzing significant enhancements in students' analytical thinking and problem-solving capabilities. Facilitated in-class group discussions and **peer-to-peer learning**.
- Master educational theory and techniques. Engaged in **educational research and experiments** related to study break, conduct experiments to elevate learning efficiency and refine pedagogical strategies.

Research Assistant — Nov. 2023 – Jan.2024
Carnegie Mellon University in Qatar - SIGFUNSAI — *Remote*

- Evaluated six different **Bert models** in preliminary experiments, contributing to methodological advancements.
- Managed labeled, and cleaned over **2,000 data points** for LLM , enhancing model performance by **10%**.
- Utilized **Chat GPT** as a comparative baseline, aiding in benchmarking model efficacy and accuracy.

Teaching Assistant — June 2023 – Aug. 2023
Litu Education — *Shenzhen, China*

- Assisted **10+**students in AP **Calculus, Cpmputer Science** and **SAT**, leading to a **20%** average grade increase.
- Developed course schedules, created engaging promotional content with over **1k views**, and authored a **100-page** vocabulary guide with personal memorization tips. Preparing teaching materials and practice questions.
- Experimenting brings **AI** into the classroom by using **AI to generate questions** for English language learning and provide writing advice. Leading to **500%** increase for teaching and grading efficacy.

PROJECTS

Our Home: Exploring AI in Interactive Gaming | *GPT, Unity, C#* — Dec. 2023 – Jan.2024

- Created a 3D **Unity** demo game, showcasing the integration of **Chat GPT** for real-time poetry generation based on player input, exemplifying the fusion of **AI** with **gaming**.

Cal-glass: A wearable food analysis device | *Python (Open CV), AI, HTML, 3D* — Nov. 2021 – Oct. 2022

- Led an **8-member** team to develop a wearable diet tracker with **Computer Vision** and AI, achieving **96.6% accuracy**. Designed a replicable 3D model in **Autodesk Fusion 360** for broader accessibility. Our project won a silver award at China's Think Big contest for its social impact.

AWARDS

2021 High School Mathematical Contest in Modeling (HiMCM) - Meritorious Award

- Developed a customized student job recommendation system using a mathematical model in MATLAB.

2020 Journalism Education Association Youth Observation Communication - Excellent Award

- Research exploring blind users' difficulties with mobile phone in modern society.