

YUXUAN ZHANG

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EDUCATION

University of California, San Diego

Sep. 2025 – Expected Jun. 2027

Master of Science in Computer Science

University of California, San Diego

Sep. 2021 – Mar. 2025

Bachelor of Science in Data Science

GPA: 4.0 / 4.0, *summa cum laude* (Top 2%, highest honor)

SELECTED HIGHLIGHTS

• Publications

- **lmgame-Bench: How Good are LLMs at Playing Games?** (NeurIPS '25 — Submitted) Lanxiang Hu, Mingjia Huo, Yuxuan Zhang, Haoyang Yu, Eric P. Xing, Ion Stoica, Tajana Rosing, Haojian Jin, Hao Zhang
- **General Modular Harness for LLM Agents in Multi-Turn Gaming Environments** (ICML '25 Workshop) Yuxuan Zhang, Haoyang Yu, Lanxiang Hu, Haojian Jin, Hao Zhang

• Open-Source Projects & Media

- **AI GameAgent** — Co-led an open-source AI-agent framework for classic games (700 + ★)
github.com/lmgame-org/GamingAgent
- **LLM Multi-Turn RL Training Library** — Co-designed a scalable multi-turn RL library for LLMs, enabling synchronous rollouts and agent-centric training pipelines
github.com/lmgame-org/GRL
- **AI Ace Attorney Gameplay** — Led AI-agent design and demo that reached 950 k views on X
x.com/haoailab/status/1912231343372812508

PROFESSIONAL EXPERIENCE

HDSI Research Assistant

Mar. 2025 – Present

UC San Diego — Halicioğlu Data Science Institute (HDSI), Dr. Hao Zhang

La Jolla, CA

- Co-led modularization of Multi-Agent System for games including 2048, Sokoban, Tetris, Super Mario Bros...
- Developed an end-to-end gameplay and evaluation pipeline for 19 LLMs, integrated with a public leaderboard
- Co-led the design of a scalable multi-turn RL training framework for LLMs in game environments

Undergraduate Research Assistant, Hao AI Lab

Jun. 2024 – Mar. 2025

UC San Diego — Halicioğlu Data Science Institute (HDSI), Dr. Hao Zhang

La Jolla, CA

- Designed and deployed the *Game Arena* website (lmgame.org) to benchmark LLMs with real-player gameplay.
- Integrated PostgreSQL to compute and update ELo scores for models and users, optimized for scale.
- Developed a multithreaded MySQL + AWS S3 pipeline to process 6.9 TB of logs, achieving a 4× throughput gain.

Data Scientist Research Intern, Maximov Lab

Apr 2023 – Dec 2024

Scripps Research, Neuroscience Department, Dr. Anton Maximov

La Jolla, CA

- Built a 3D EM computer-vision neuron segmentation pipeline with SAM 2, achieving $\leq 80\%$ validation accuracy.
- Developed an interactive web app using Neuronglancer for 3D visualization of 32-bit large-scale neuron datasets.
- Converted 500+ GB of EM images into compressed HDF5, cutting storage by 70%.

TECHNICAL SKILLS

Programming Languages: Python, Java, C/C++, SQL (PostgreSQL), JavaScript, HTML/CSS, R, Lua

Frameworks & Libraries: PyTorch, Jax, Ray, DeepSpeed, Gymnasium, Triton, Node.js, PIL, cv2, React, OpenCL

Developer Tools: Git, Docker, Kubernetes, PostgreSQL, MySQL, AWS S3, Wandb, MongoDB, Postman, Linux/Unix

AI API Integration: OpenAI, Google Gemini, Anthropic, Grok, DeepSeek, Together AI, and Llama

Domains: NLP, LLM/VLM, Multi-Agent Systems, Machine Learning, Deep Learning, RL, Data Mining

HONORS & AWARDS

Cornell, Maryland, Max Planck Pre-doctoral Research School (CMMRS)

Aug. 2023

Joined a week-long research talk on software systems and informatics at the Max Planck Institute, Germany.

UCSD HDSI Scholarship Program

Sep. 2023 – Jun. 2024

Awarded a scholarship for a research project proposal, receiving financial support for the academic year.