

EDUCATION BACKGROUND**University of Wisconsin-Madison**

Madison, WI

- Major: Computer Engineering, Computer Science; GPA: 3.98/4.0
By 04/2024

Sep. 2023 – Jun. 2026

Sichuan University

Chengdu, China

- Major: Materials Science and Engineering; GPA: 3.71/4.0
By 02/2023

Sep. 2021 – Jun. 2023

RESEARCH**Benchmarking LLM in Embodied AI with Language-Guided SLAM** University of Wisconsin-Madison, USA

- Leader
 - Devised a language-guided SLAM benchmark to test LLMs' localization and mapping ability, coupling natural-language instructions with standard state-estimation pipelines and ground-truth trajectories for evaluation.
 - Formulate language-conditioned SLAM that links Transformer inference to state estimation tools.

July 2025 – Present

Jump Representation for Analyzing and Improving LLM Reasoning University of Wisconsin-Madison, USA

- Key contributor
 - Represented chain-of-thought as a tree-jump trace (structure + action), labeling steps as calc/verify/backtrack to quantify exploration, exploitation, overthinking, and forgetting.
 - Built a two-stage ReJump-Extractor to convert free-form CoTs into structured graphs, achieving >0.9 tree/jump similarity on Game of 24 and >90% pass@3 extraction reliability on MATH500.
 - Discovered that models with similar accuracy exhibit distinct reasoning styles.

March 2025 – Present

Investigating Length Generalization for Transformers in Arithmetic Tasks University of Wisconsin-Madison, USA

- Leader
 - Propose Aligned Blankspace Augmentation (ABA) to zero-pad numbers and insert synchronized blanks across operands and results.
 - Extend ABA to 6 arithmetic tasks that is not length-generalizable in vanilla Transformers and outperform previous methods on most of the tasks.

August 2024 – September 2025

Screening highly conductive MOFs with random forest algorithm

Sichuan University, China

- Key contributor
 - Used machine learning to identify highly conductive Metal-Organic Frameworks (MOFs).
 - Curated a dataset of conductivity for over 200 MOFs using R studio.

Jan 2023 – May 2023

TEACHING & MENTORING**Bayview Foundation, Inc.**

Madison, WI

- Volunteer Tutor — Teen Program
 - Help high-school students with math homework and strengthen problem-solving strategies.
 - Support after-school programming and supervise youth activities.

March 2025 – Present

University of Wisconsin–Madison

Madison, WI

- Peer Mentor
 - Worked one-on-one with students to develop problem-solving skills.
 - Tutored linear algebra, machine learning algorithms, and PyTorch.

January 2025 – Present

INTERNSHIP**ONE-CHIP Biotechnology CO., LTD**

Department of Technology

- Intern
 - Led the development of a WeChat Mini Program for COVID test kit data display.

Mar. 2022 – Jun. 2022