

# YIHENG ZHANG

608-209-7701 | zhang2968@wisc.edu | [in](#) | [G](#)

## EDUCATION

### University of Wisconsin-Madison (UWM)

*Bachelor of Science in Computer Science, GPA: 4.0*

Madison, Wisconsin

*Sep. 2024 – Jun. 2026*

### University of Shanghai for Science and Technology (USST)

*Bachelor of Science, GPA: 3.87(WES) 3.84(Official)*

Shanghai, China

*Sep. 2022 – Jun. 2024*

## RESEARCH EXPERIENCE

### Developing neural network framework for LLMs' arithmetic ability | *Programmer*

Mar. 2025 - today

- Focusing on enhancing their arithmetic reasoning abilities by optimizing model efficiency and expanding numerical computation capabilities Designing and integrating algorithmic improvements to extend LLMs' ability to perform multi-step calculations and handle complex mathematical expressions. Conducting benchmark tests comparing optimized models with baseline architectures, analyzing trade-offs between efficiency and arithmetic reasoning performance.

## PROJECTS

### Kaggle:LLMs:You can't please them all (Python) | *Programmer*

Jan. 2025

- Designed and implemented algorithms to generate short essays that may trigger scoring disagreements between LLM judges. Trained and fine-tuned LLMs on custom datasets to better understand their scoring behavior and susceptibility to inconsistencies. Applied reinforcement learning and adversarial training techniques to explore potential biases in AI-based grading.
- Successfully generated text samples that consistently led to high variance in AI evaluations.

### Kaggle:Spaceship Titanic (Python) | *Programmer*

Dec. 2024

- Used scikit-learn to build a regression tree model for data analysis. Data preprocessing was performed, including missing value imputation, feature engineering, and label encoding to prepare the dataset for modeling. Performed hyperparameter tuning and cross-validation to optimize model performance. Visualized data distributions and feature importance to provide insights into predictive factors.
- Learned about the complete process doing data analysis. Built predictive models to determine the classification.

### Molecular Architect: 2D Bridge Construction Game Project (Unity) | *Programmer*

Jun. 2024 – Jul. 2024

- Developed three increasingly difficult game mode levels, with the third level introduces complex mechanics requiring the use of reflective properties along the borders for problem-solving to elevate player's sense of interaction.
- Implemented additional functionalities such as scene transitions and model imports, enhancing the game's versatility, and optimized the original mono instance game framework by integrating new modules, including custom music and UI panels, to improve player engagement and overall immersion.
- Game Link: [🎮](#)

### Thousands of Phases: AVG Game Project (Unity) | *Programmer*

Sep. 2023 – Dec. 2023

- Developed the framework and implemented the game play mechanics based on the traditional Chinese background, focusing on the diversity development of individuals.
- Created a basic combat system with a turn-based card fighting mechanic like Slay the Spire to enrich players' experience.
- Finalized the the existing framework using **Fungus**, adding essential features including music tracks, text displays, save/load capabilities, and the save menu's scripts to enhance the user experience and more accurately reflect the game's emotional tone.

## EXTRACURRICULAR EXPERIENCES

---

### Blue Bridge Cup Provincial Competition, USST

Sep. 2023 – Dec. 2024

#### *Third Prize*

- Participated in a programming contest using **C++** to enhance algorithmic problem-solving, time management, and real-world application skills among competitors.
- Familiarized with Data Structure, Number Theory, Graph Theory and Trees.

### Technical Department, USST

Sep. 2023 – Jun. 2024

#### *Department Head*

- Developed a digital art museum using **Unreal Engine** to enable students having a virtual tour of a digitally-based museum.
- Oversaw team members in planning and executing filming, editing, and post-production of promotional videos for school clubs, ensuring a cohesive and engaging final product through efficient collaboration.
- Provided technical instruction and guidance to school technical club members through training sessions and workshops, ensuring they gained real-world knowledge and hands-on experience with tools and technologies like AE and PS.

## TECHNICAL SKILLS

---

**Main Courses:** Machine Learning, Optimization, JAVA, Data Structure

**Programming Languages:** Java, C/C++, SQL, Unity, Python, Linux(Basic commands),HTML

**Languages:** Chinese(Madarine), English (Toefl: 106)

**Developer Tools:** VS Code, Visual Studio, Pycharm, Unity

**Etra Skills:** PS, AE, Word, Excel

**Libraries:** Javadoc