

# KAIFENG LU

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## EDUCATION

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**University of Rochester** 08/2023 - 05/2027  
*BS in Computer Science and Mathematics – Double Major (current GPA: 3.89/4.0)* Rochester, NY  
Honors: 2023-2024 Dean's List

## INTERNSHIP

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**Software Developer Intern in DevOps | MySQL** 06/2024-08/2024  
*Shenzhen Lan-you Technology* Wuhan, China

- Develop a MySQL-based user permission management system for over 1000 users
- Implement a tree-like user permission menu interface with control features using JDBC.

**Summer Intern, Dongfeng Yanfeng Automobile Accessories System Co.** 07/2022-09/2022  
*Wuhan, China*

- Identified three potential issues in sorting and inspection systems, updating six search queries to enhance the intelligent logistics system's performance.
- Improvements were adopted across two factories and four assembly lines.

## TEACHING EXPERIENCE

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**Teaching Assistant | Math162 Calculus II** 01/2025 – present  
*University of Rochester* Rochester, NY

- Lead weekly recitation sessions for students of 15 to help them review the challenging concepts from lectures.
- Take attendance and evaluate the participation of each student.
- Prepare and present practice problems to help students master integration techniques. Clarify doubts and address any questions students may have.

**Teaching Assistant | ECE114 Introduction to C/C++** 01/2025 – present  
*University of Rochester* Rochester, NY

- Run, assess, and grade coding assignments against the grading rubrics.
  - Lead weekly lab sessions that guide students in both conceptual understanding and pragmatic programming of C/C++.
- Provide support on debugging, environment setups, and troubleshooting.

**Webwork Teaching Assistant | Math162 Calculus II** 09/2024 – 12/2024  
*University of Rochester* Rochester, NY

- Guided students in problem-solving techniques and clarified complex calculus concepts, emphasizing the motivation behind theorems
- Provided personalized mentoring to five students, leading to significant improvements in their exam performance by 15%. Facilitate communication between students and professors.

## RESEARCH EXPERIENCE

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**Research Assistant | Professor Jian Kang's Lab** 11/2024 – present  
*University of Rochester* Rochester, NY

- Currently working on building a multimodal music database with Rebecca Salganik.
- Perform an extensive literature review on benchmarks and datasets of image and music understanding.
- Run experiments on new datasets for multi-model understanding of music lyrics by standardizing and streamlining the extraction pipeline.

**Research Assistant | VISTa Lab** 09/2024 – 12/2024  
*University of Rochester* Rochester, NY

- Assisted PhD students under Professor Luo in collecting data for a novel object removal model, contributing to advancements in deep learning.
- Collected 500 test cases and masked over 1,000 data points to contribute to the advancement of the model.

## EXTRA CURRICULUM

**Volunteer Peer Advisor** | *Center of College Advising Services*  
*University of Rochester*

02/2024 – 12/2024  
*Rochester, NY*

- Connected six students to research opportunities and introduced them to eight professors' ongoing Mathematics and Computer Science projects.
- Evaluate the performance, strengths, and weaknesses of 12 students and formulate a personalized course selection plan pertaining to eight different majors.

**Co-founder** | *Chinese Muscle Club*  
*University of Rochester*

02/2024 – present  
*Rochester, NY*

- A fitness organization dedicated to fostering community among students who share fitness/building muscle as an interest and Sinosphere background.
- Recruited diverse students from international students, first-generation immigrants, Chinese language learners, and Chinese-American veterans.
- Helped organize the orientation course Mass Gaining 101 and group training sessions.
- Organized and planned a special fitness-oriented New Year's Eve dinner, a hotpot meal that prioritized high-protein, low-calorie options without sacrificing taste.

**Founder & President** | *Constant Robotics Club*  
*Wuhan Britain-China School*

09/2020 – 04/2022  
*Wuhan, China*

- Led a team of 30 members and fundraised 450,000 RMB for club activities.
- Designed and developed robots using CAD software; mentored younger students in hardware building processes.
- Achieved recognition as Best Club of the Year and Best Club of Innovation in 2021.
- Won 2<sup>nd</sup> Place in RCC Qianjiang International Robotics Open 2021

## PERSONAL PROJECTS:

**FER Ensemble is All You Need** | *Deep learning project*  
*University of Rochester*

10/2024 – 12/2024  
*Rochester, NY*

- Independently developed an AI model that utilizes ensemble methods in deep learning for mixed facial expression recognition in computer vision.
- Achieve a 5% performance boost compared to previous AI models on the standard benchmarks.
- Designed and validated experiments on Lambda cloud platforms.
- Created a webcam-based expression recognition demo.
- Drafted a research report for the final outcome. Recognized for excellence and invited to present a final report in an undergraduate deep learning course, achieving a perfect score.

## AWARDS AND HONORS:

**Dean's List**

09/2023 – 04/2022

*University of Rochester*

*Rochester, NY*

- A list of students whose academic achievement warrants a notation on the dean's list is issued.

**Distinction** | *American Mathematics Competition 12*  
*Wuhan Britain-China School*

12/2021

*Wuhan, China*

- Awarded for scoring 126 on the AMC 12, placing in the top 2.5% among over 20000 participants worldwide.
- Ranked 6th out of 340 students in my class.

**2<sup>nd</sup> place** | *RCC International Robotics Open 2021*  
*Wuhan Britain-China School*

06/2021

*Wuhan, China*

- Collaborated with three other teams to secure 2nd place in the knockout round, surpassing six leagues to reach the finals. Won 4 out of 6 matches in the qualification round.
- Achieved a 14th place ranking out of 63 international teams from China, America, Australia and Turkey.

## TECHNICAL SKILLS:

- Proficient in Java, Latex, Python, Pytorch. Familiar with JDBC, MySql, Git/Github, Matlab, C, C++