KAIYAN ZHENG

Personal Resumé

(She/Her)

✉ kaiyanz@umich.edu

in https://www.linkedin.com/in/kaiyanzheng

○ https://katherynzheng.github.io

Education

The University of Michigan, Ann Arbor   **Ann Arbor, Michigan**

Junior, August 2024 - Present

- **Department:** College of Literature, Science and the Arts
- **Program:** B.S. in Data Science & Mathematical Sciences
- **Coursework:** EECS 370 (Computer Organization), EECS 281 (Data Structures & Algorithms), DATASCI 306 (Statistical Computing), MATH 423 (Math of Finance)

The Chinese University of Hong Kong, Shenzhen   **Shenzhen, China**

September 2022 - July 2024

- **Department:** Jointly launched by School of Science and Engineering, Data Science & Management and Economics
- **GPA:** 3.6 (Top 20%)
- **Program:** Financial Engineering - Quantitative Finance
- **Core Coursework:** C/C++ Programming, Database Systems, Data Structures, Stochastic Processes, Ordinary Differential Equations, Optimization, Discrete Mathematics, Probability and Statistics

Awards

CUHK(SZ) Bowen Scholarship	2022-2024
CUHK(SZ) Dean's List	2022-2023
Second Prize, China Undergraduate Mathematical Contest in Modeling	2023
First Prize, China National High School Biology Olympiad	2021

Research Projects

Federated Unlearning with Gradient Descent and Conflict Mitigation   **With Zibin Pan et al.**

Research Paper Project (Submitted)   *May. 2024 to Aug. 2024*

- At Laboratory of Energy Internet supervised by Prof. Junhua Zhao
- Our proposed FedOSD introduces an unlearning cross entropy loss and calculates an orthogonal steepest descent direction, improving unlearning efficiency and maintaining model utility, which is verified by extensive experiments.

Machine Learning Meets Micro-robotics   **With Jiachun Zheng et.al.**

Review Article (To be submitted)   *Oct. 2023 To Present*

- At Medical Micro-Robotics Laboratory supervised by Prof. Zhuoran Zhang
- Discussed about the recent innovations in learning-based micro-robots, especially in the medical robotics field.
- Responsible for the Planning section in the review

Academic Experience

School of Data Science, CUHK(SZ)   **Shenzhen, China**

Undergraduate Student Teaching Fellow of CSC1001   *Sept. 2023 to Dec. 2023*

- CSC1001 [Introduction to Computer Science: Programming Methodology]: Introductory Python course
- Engage in homework grading design for 1000+ students
- Holding labs every week, answering questions for students online and offline

School of Data Science, CUHK(SZ)   **Shenzhen, China**

Academic Mentor and Academic Coordinator for Future Freshman Winter Camp   *Feb. 2024*

- Conducted lectures to 250+ students (Introductory Machine Learning) for introducing university courses during the winter camp
- Planned and managing the lecture time slots and materials