Yifei SONG

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EDUCATION

Chinese University of Hong Kong   **Hong Kong SAR, China**
B.Eng in Information Engineering, minor in Computer Science, MGPA 3.83/4   *Sep 2021 - July 2025 (expected)*
- Ranked top 0.5% among 338,000 students in the National College Entrance Exam.

École Polytechnique Fédérale de Lausanne   **Lausanne, Switzerland**
Exchange student in School of Computer and Communication Sciences   *Feb 2024 - July 2024*

RESEARCH INTERESTS

Trustworthy AI, Computer Vision, Large Language Models

TECHNICAL SKILLS

Programming Languages: Python, C++, C#.NET, JavaScript, SQL
Libraries and Tools: PyTorch, Pandas, Numpy, OpenCV, Git

RESEARCH EXPERIENCES

Summer research: Enhancing video conferencing with generative model
Chinese University of Hong Kong, supervised by Prof. Chen He   *Jun 2023 - Sep 2023*
- Modified the video conferencing network with generative model and segmentation model
- Applied VQGAN model and YOLOv3 model to the video conferencing network to improve the transmission quality and resolve the freezing problem
- gained experience of programming with Pytorch and network simulation

Semester Research: Copyright-aware Incentive System for Generative Models
École Polytechnique Fédérale de Lausanne, supervised by Prof. Faltings Boi   *Feb 2024 - present*
- Evaluated the existed metrics of model memorization and similarity and proposed a novel metric of quantifying copyright infringement in text-to-image generative models
- Build a hierarchical Reinforcement Learning system to distribute reasonable payoff to the data holders considering the contribution and copyright loss

Final Year Project: Machine Unlearning on Large Language Models
Chinese University of Hong Kong, supervised by Prof. Chow Sze Ming   *Aug 2024 - present*
- Investigated the current approaches of Machine Unlearning on generative models, identifying key challenges and potential gaps for secure data removal

PROJECTS

Course Project: Event Website with MongoDB
Chinese University of Hong Kong   *Oct 2023, Dec 2023*
- Developed a MongoDB-based sebsite for events searching and commenting, which enables the users to search for the events by filters, mark the favourites and add comments
- Developed a separate access for administer, which enables the administer to manage the information of the events and the users

EXTRACURRICULAR ACTIVITIES

- **Player in Women's Mainland Undergraduate Association Basketball Team (WMUA)**, Won the third place in Hong Kong Mainland Undergraduate Basketball Competition (Apr 2023)
- **Group Leader in Mainland Orientation Camp**, Organized face to face ice breaking activities for freshman

HONORS AND AWARDS

Dean's List   **Department of Engineering, CUHK**
For Top 10% students   *2022-2023*
Clement Ho Ming De Xin Min Alumni Scholarship   **United College, CUHK**
For students with good academic performance (GPA 3.7+); 10000 HKD   *2022-2023*
IE Award   **Department of Information Engineering, CUHK**
For exchange students with good academic performance; 30000 HKD   *2024*

LANGUAGES

- **Putonghua, Cantonese:** Native; **English:** Professional (Toefl 94)