# Yuxin (Shirley) Li

+86 18982209313 | +852 66428808 | e@yuxin.li | yling@connect.ust.hk | www.yuxin.li

# **EDUCATION BACKGROUND**

# The Hong Kong University of Science and Technology

2022-2026 (expected)

Bachelor of Engineering in Computer Science

University of California, Berkeley

2023

Summer Session - CS61BL Data Structures & Programming Methodology

#### **SKILLS & CAPABILITIES**

**Technical skills**: Python, C++, Java, Scala, RISC-V, LaTeX.

Ongoing Course: Machine Learning, Large-Scale Machine Learning for Foundation Models, Data Visualization.

Courses taken:

Math & Physics: Calculus, Multivariable Calculus, Linear Algebra, Applied Statistics, Probability, Discrete Mathematical Tools for

Computer Science, General Physics with Calculus.

Computer science: Programming with C++, Object-Oriented Programming and Data Structures, Design and Analysis of Algorithms,

Computer Architecture.

Applied math & CS: Fundamentals of Actuarial Mathematics, Introduction to Electro-Robot Design, Introduction of Industrial Engineering

and Decision Analytics.

# RESEARCH PROJECTS

#### MA-LoT: Multi-Agent Lean-based Long Chain-of-Thought Reasoning enhances Formal Theorem Proving

2025

Co-First Author (Supervised by Professor Tong Zhang, University of Illinois Urbana-Champaign)

- Developed the first multi-agent framework for Lean4 theorem proving that balance high-level NL reasoning and FL verification in Long CoT.
- · Implemented the significant parts of the codebase and served as one of the primary manuscript authors.

#### **Explore Selective Disclosure Bias with Networks of LLM-based Agents**

2024

Research Assistant (Supervised by Professor Yongren Shi, The University of Iowa)

- Developed a simulation to study how selective disclosure bias affects opinion segregation.
- Demonstrated that interactions with acquaintances or strangers can facilitate the spread of unpopular norms, whereas interactions with close friends or family may hinder information cascades.

# **Knowledge Discovery over Machine Learning**

2023

Undergraduate Research Assistant (Supervised by Professor Minhao Cheng, The Pennsylvania State University)

· Conducted in-depth analysis to translate mathematical concepts and theorems into algorithms and machine learning models.

# Albumen Thermodynamic Property in Different Solvents by Differential Scanning Calorimetry

2021

- Designed the experiments to investigate the thermodynamic properties of albumen in various solvents using differential scanning calorimetry.
- In charge of data processing, report writing, and poster presentation.

# Comparative Studies on the Vitamin C Contents in Fresh Fruits & Sold Orange Juice

2020

- Designed and conducted the experiments to study the Vitamin C contents in jujube, pear, lemon, orange, and several types of orange juice.
- Honored with Research Excellence Award of Chengdu No.7 High School.

# **OTHER ITEMS**

- Practical experience with deep learning, certified by Nvidia Deep Learning Institute, 2024.
- Peer mentor in Peer-Mentoring Program, Mainland Students and Scholars Society (undergrad), The Hong Kong University of Science and Technology, 2023-present.
- China Entrepreneur Network, The Hong Kong University of Science and Technology, 2022.
- Mainland Students and Scholars Society (undergrad), The Hong Kong University of Science and Technology, 2022.