

# KEI Yat-long, Andes

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## EDUCATION

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### The Chinese University of Hong Kong

Hong Kong

Incoming PhD Student in Information Engineering

Starting from Aug 2022

- Supervisor: Professor Sherman Chow
- Research Interest: Privacy-preserving Machine Learning and Blockchain
- Hong Kong PhD Fellowship Scheme Awardee

### The Chinese University of Hong Kong

Hong Kong

Bachelor of Engineering in Financial Technology

Sep 2018 – Present

- GPA: 3.827/4.000, Major GPA: 3.941/4.000, Expected Graduation: July 2022
- Graduation Thesis Topic: Hyperparameter Optimization for Privacy-preserving Machine Learning
- Honors and Awards:
  - Dean's List 2018/19, 2019/20, 2020/21, 2021/22 (top students in the Faculty of Engineering)
  - Head's List (Merit) 2018/19, 2020/21 (top students in New Asia College)
- Scholarship:
  - ELITE Stream Student Scholarship 2019/20, 2020/21 (outstanding performance in ELITE course, \$16,000 × 2)
  - Mr. Wu Sai Wing Memorial Scholarship 2020/21 (10 awardees among the college, \$10,000)
  - AIG Hong Kong Scholarship 2020/21 (4 awardees among the university, \$20,000)
  - HKSAR Government Scholarship 2021/22 (top students among all university in Hong Kong, \$40,000)
- Selected Courses:
  - Fundamentals of Artificial Intelligence: an undergraduate honor course that focused on artificial intelligence
  - Applied Cryptography: a postgraduate course that discussed the latest advances in applied cryptography
  - Computer and Network Security: a postgraduate course that provided a complete overview of cybersecurity
- Relevant Coursework:
  - Built a secure e-commerce website with the use of cloud technology and security protocol
  - Conducted a research project to investigate 3 multi-signature schemes that are suitable for blockchain
  - Developed software to demonstrate design patterns and principles of Object-Oriented Programming
  - Examined 8 machine learning algorithms in solving a practical problem

## WORK EXPERIENCE

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### Department of Information Engineering, the Chinese University of Hong Kong

Hong Kong

Full-time Research Assistant

May 2022 – Present

- Topic: Privacy-enhancing Techniques for Authentication
- Supervisor: Professor Chau Sze Yiu (Department of IE, CUHK)

### Faculty of Engineering, the Chinese University of Hong Kong

Hong Kong

Summer Research Intern

Jun – Aug 2021

- Topic: Fast and Scalable Payment using Cryptocurrencies
- Supervisor: Professor Sherman Chow (Department of IE, CUHK)
- Performed literature review on off-chain (layer-2) scalability solutions on blockchain, including their techniques, advantages, and limitations
- Constructed a new off-chain protocol for private and scalable blockchain micropayment with practical collateral

- Topic: Stochastic Optimization for Reinforcement Learning
- Supervisor: Professor Wai Hoi To (Department of SEEM, CUHK)
- Developed a simulation environment for testing reinforcement learning algorithms
- Implemented 4 reinforcement learning algorithms and evaluated their empirical performance
- Reviewed a learning control problem from academic paper and solved it using implemented algorithms

EXTRA-CURRICULAR ACTIVITIES

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- Provided regular services like book borrowing and purchasing to thousands of members of the society
- Organized various seminars and competitions

- Hosted an MP Pair Competition with 60 participants
- Applied student activity fund on behalf of the student association

COMPETITION

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- Utilized machine learning techniques to create a green bond index
- Constructed a web prototype to demonstrate a user-friendly and integrated platform
- Analyzed the business model on the service provided

SKILLS

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Language	Native in Cantonese, Fluent in English
Software	Proficient in Microsoft Word, Excel, PowerPoint, and Visual Studio
Programming Languages	Proficient in C, C#, Java, JavaScript, Julia, PHP and Python
Familiar Libraries	NumPy, Pandas, Scikit-learn, XGBoost, Pytorch