

Keng-Yu Chen

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EDUCATION

Master's Student in Computer Science Sep. 2022 – Present

Graduate Institute of Electrical Engineering, National Taiwan University

Thesis Advisor: Jiun-Peng Chen & Ho-Lin Chen

Current GPA: 4.12/4.3

Bachelor of Science in Computer Science & Information Engineering Sep. 2018 – Jun. 2022

Department of Computer Science & Information Engineering, National Taiwan University

GPA: 3.89/4.3

Last 60 GPA: 4.11/4.3

Major GPA: 4.13/4.3

(Double Major) Bachelor of Science in Mathematics Sep. 2018 – Jun. 2022

Department of Mathematics, National Taiwan University

PUBLICATION

- Masking Floating-Point Number Multiplication and Addition of Falcon (Under Revision)

Keng-Yu Chen, Jiun-Peng Chen

IACR Transactions on Cryptographic Hardware and Embedded Systems, 2024

RESEARCH EXPERIENCE

Side-Channel Analysis Laboratory Jun. 2020 – Present

- * Department of Electrical Engineering, National Taiwan University
- * Principal Investigator: Jiun-Peng Chen
- * Researching all topics of side-channel analysis on lattice-based post-quantum cryptography

Adjunct Research Assistant Sep. 2020 – Present

- * Research Center for Information Technology Innovation, Academia Sinica
- * Principal Investigator: Jiun-Peng Chen
- * Studying and implementing side-channel analysis on concrete cryptographic schemes such as Elliptic Curve Cryptography and NTRU Prime key encapsulation mechanism

Research Intern Jul. 2023 – Aug. 2023

- * Institute of Information Science, Academia Sinica
- * Advisor: Kai-Min Chung
- * Surveying recent research in theoretical cryptography, mostly in instantiability of schemes in random oracle model, encrypt-then-sign paradigm, and quantum homomorphic encryption

HONORS AND AWARDS

Champion — Innovation Application Competition of Digital Twins for Smart Farming <i>Council of Agriculture, Executive Yuan, Taiwan</i>	Oct. 2022
Academic Achievement Award <i>Department of Computer Science & Information Engineering, National Taiwan University</i>	Apr. 2019

COURSEWORK

Relevant Courses	Sep. 2018 – Present
<ul style="list-style-type: none">* Introduction to Cryptography (A)* Formal Languages and Automata Theory (A)* Computer Architecture (A+)* Post-quantum Cryptography (A+)* Advanced Digital Signal Processing (A+)* Theoretical Aspects of Modern Cryptography (A)* Advanced Algorithm (A)* Quantum Information and Computation (A+)	

WORKING EXPERIENCE

Teaching Assistant <i>Calculus (1)(2)</i> <i>Teacher: Ya-Ju Tsai</i>	Sep. 2020 – Jan. 2021
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OTHER EXPERIENCE

Attendee — Asiacrypt 2022 <i>Taipei, Taiwan</i>	Dec. 2022
Attendee — Postquantum Crypto Minischool <i>Academia Sinica, Taiwan</i>	Jul. 2022

EXTRACURRICULAR ACTIVITY

Public Address (PA) Team	Sep. 2019 – Jun. 2021
<ul style="list-style-type: none">* Student Activity Center, National Taiwan University* Operating audio and lighting systems for stage performances at the school's auditorium, including microphones, audio mixers, speakers, and lighting consoles	
Equipment Team	Feb. 2019 – Jun. 2021
<ul style="list-style-type: none">* Tainan Alumni Association, National Taiwan University* Coping with all the work behind the scenes for stage performances, including stage lighting, audio systems, photography, and videography	

SKILLS

Programming: C/C++, Python, Verilog, Makefile, MATLAB, R
Tools: Git/GitHub, ChipWhisperer, L^AT_EX
Languages: English (IELTS Score: 7.5), Chinese (Native)