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 (3.94/4.0)

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 (3.73/4.0)
Last 60 GPA: 4.11/4.3 (3.88/4.0)
Major GPA: 4.13/4.3 (3.96/4.0)

(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 Techonology Innovation, Acamedia 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, Acamedia Sinica
- * Advisor: Kai-Min Chung
- * Surveying recent research in theoretical cryptography, mostly in instantiability of schemes in the random oracle model, encrypt-then-sign paradigm, and quantum homomorphic encryption

Honors and Awards

Champion — Innovation Application Competition of Digital Twins for Smart Farming　　　　　　　　Oct. 2022
Council of Agriculture, Executive Yuan, Taiwan

Academic Achievement Award　　　　　　　　Apr. 2019
Department of Computer Science & Information Engineering, National Taiwan University

Coursework

Relevant Courses　　　　　　　　Sep. 2018 – Jun. 2023
  * 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　　　　　　　　Sep. 2020 – Jan. 2021
Calculus (1)(2)
Teacher: Ya-Ju Tsai

Other Experience

Attendee — Theory of Cryptography Conference 2023　　　　　　　　Nov. 2023
Taipei, Taiwan

Attendee — Asiacrypt 2022　　　　　　　　Dec. 2022
Taipei, Taiwan

Attendee — Postquantum Crypto Minischool　　　　　　　　Jul. 2022
Academia Sinica, Taiwan

Extracurricular Activity

Public Address (PA) Team　　　　　　　　Sep. 2019 – Jun. 2021
  * 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
  * 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, LaTeX
Languages: English (IELTS Score: 7.5), Chinese (Native)