張志謙 (Chih-Chien Chang)

Email : b08902128@csie.ntu.edu.tw

My Blog : https://daniel-chang-t.github.io/

Mobile : 0981975030

Education

National Taiwan University Taipei, Taiwan

Bachelor, double major in Computer Science and Math *Sep 2019 – June 2023(Anticipate)*

Experience

- **Theoretical Foundation of Modern Cryptography, NTU** Taipei, Taiwan

  Teaching Assistant *Feb 2023 - Jun 2023*

  This is an optional cryptography course in National Taiwan University's computer science department. Designed for students who wants to know more about how modern cryptographers formalize the security of a crypto system. My duties include correcting hand-written homework and answering student questions.

- **Asiacrypt 2022** Taipei, Taiwan

  Attendee *Dec 2022*

  One of International Association for Cryptologic Research(IACR)'s three flagship conferences.

- **Algorithm Design and analysis, NTU** Taipei, Taiwan

  Teaching Assistant *Sep 2022 - Dec 2022*

  This is the required algorithm course in National Taiwan University's computer science department. Over 250 students took the course in 2022. My duties include designing/correcting hand-written homework and answering student questions.

- **Institute of Information Science, Academia Sinica** Taipei, Taiwan

  Internship, Advisor:Prof. Shin-Cheng Mu *July 2022 - Aug 2022*

  - **Free theorem**:
    Free theorem (Theorems for free!) is an important theorem in programming language theory, which demonstrate the restriction and capability of polymorphic function. I read and presented this paper together with some application to my peers in group meeting.
  - **Side effect interation**:
    Anything a function does, except than returning result is side effect. There are multiple ways to model side effect in functional programming, the two mainstream ways are monad and effect handler. Recently, people put focus on a special class of effect, called algebraic effect. How them can be modeled as modular effect handler and how multiple effect interact with each other under this model. I did some study about this area, presented to advisor and peers.

- **Frontiers of science summer camp - Quantum Computing** Online

  Teaching Assistant *July 2021*

  A two week summer camp for undergraduate/graduate students, introducing the mathematical model for quantum computer and import algorithms such as Shor's algorithm. Over 80 students participated in this event. I was responsible for answering student questions.

Skills

Languages: C/C++, Python, Haskell

Tools: Shell script, Git