

# 陳亮錡

## Liang-Chi Chen

✉ gary0828gary@gmail.com ☎ +886 988431461

🏠 <https://chi-0828.github.io/LCCHEN.github.io/>



## EDUCATION

- **National Cheng Kung University (NCKU)**
  - MS, **Computer Science** and Information Engineering
  - Sept. 2022 - present
- **National Chung Cheng University (CCU)**
  - BS, **Computer Science** and Information Engineering
  - Sept. 2018 - Jun. 2022

## RELEVANT EXPERIENCE

- **Research intern**
  - Institute of Information Science, Academia Sinica. | 2022/07 - 2022/08 (Summer)
  - Storage, Non-volatile memory, Computer Architecture / System
- **Software Engineering intern**
  - Patere | 2021/07 - 2021/08 (Summer)
  - Computer vision application, DL, Python, C++, Tensorflow, OpenCV

## PUBLICATION

### Conference papers:

#### 1. Efficient Sanitization Design for LSM-based Key-Value Store over 3D MLC NAND Flash

Liang-Chi Chen, Shu-Qi Yu, Chien-Chung Ho, Wei-Chen Wang, Yung-Chun Li

The 38th ACM/SIGAPP Symposium On Applied Computing (SAC), March 27-31, 2023. (to be appear)

#### 2. RNA-seq Quantification on Processing in memory Architecture: Observation and Characterization

Liang-Chi Chen, Shu-Qi Yu, Chien-Chung Ho, Yuan-Hao Chang, Da-Wei Chang, Wei-Chen Wang, Yu-Ming Chang

The 11th IEEE Non-Volatile Memory Systems and Applications Symposium (NVMSA), August 23-25, 2022

<https://doi.org/10.1109/NVMSA56066.2022.00014>

### Journals papers:

#### 1. LongPhase: an ultra-fast chromosome-scale phasing algorithm for small and large variants

Jyun-Hong Lin, Liang-Chi Chen, Shu-Chi Yu, Yao-Ting Huang,

Bioinformatics, 2022, 38.7: 1816-1822.

<https://doi.org/10.1093/bioinformatics/btac058>

## RESEARCH INTEREST

- Embedded system, memory/storage system
- Processing-In-Memory

## PROJECT

- **Sequencing on processing-in-memory system**
  - Running state-of-the-art RNA quantification software "kallisto" on UPMEM DPU system
  - <https://github.com/chi-0828/RNA-Abundance-Quantification-on-UPMEM>
- **Sanitization Design on NAND Flash**
  - SSD simulator implementation in C++
- **longphase**
  - Assist in implementation of phasing software
    - Parsing module and multi-threading parallelism
    - Build configuration tool
    - <https://github.com/twolinin/longphase>

## AWARD

- Presidential Award (Rank 1 in class), second semester of the 108 academic year in CCU CSIE