Chun-Mu, Weng[*†]

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I'm an enthusiastic competitive programmer who is eager to seek an opportunity to put all my strength into resolving real-life problems.

1 Academic Performance

- Currently a sophomore at National Tsing Hua University (Taiwan), majoring in Computer Science (expected to graduate in Jun., 2025)
- GPA of **4.16**/4.3 cumulatively
- Served as TA for Introduction to Programming II in Spring 2022, 2023
  - Main task is to design online judge problems, which improved expertise & mastery in **data structures** & **algorithms**

2 Leaderships & Awards

2.1 Programming Contests

I started competitive programming since high school. Here are some prominent and prestigious contest I participated in college:

- 2021 National Collegiate Programming Contest Final (Taiwan), team *Dkjistra*, **Honorable Mention**, ranked 28^{th}.
- 2021 International Collegiate Programming Contest Asia Taipei Regional, Team *Dkjistra*, **Silver Award**, ranked 30^{th}.
- 2022 National Collegiate Programming Contest Final (Taiwan), team *DebugCat Capoo*, **Honorable Mention**, ranked 23^{rd}.
- 2022 International Collegiate Programming Contest Asia Taoyuan Regional, team *DebugCat Capoo*, **Bronze Award**, ranked 39^{th}.

2.2 High-Performance Computing Competitions

- 4 sophomores & 2 juniors teamed up
- Elected as the leader due to richer background knowledge & ability to learn more quickly
- Took on responsibilities and maintained the team

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2.2.1 2022 HiPAC (Taiwan)

- 1st High Performance Application Competition by NCHC Taiwan
- Profiled and optimized the efficiency of calculating future green energy mechanisms using Quantum ESPRESSO software across 16 nodes of the cluster supercomputer *Taiwania 3*
- Won **3rd place** in the competition

2.2.2 2022 APAC HPC-AI Competition

- 5th Asia-Pacific High-Performance Computing & AI Competitionn[1], co-organised by HPC-AI Advisory Council, NSCC Sg. & NCI Au. and involved 25 teams from 12 countries
- Resolved tasks on 3 critical issues that leverage HPC & AI to develop solutions to human health & environmental sustainability
- Improved throughput between 16 NVIDIA V100 on 4 nodes of the supercomputer *Gadi* by 2.7 times via Active Message scheme of UCX Rendezvous protocol & optimization
- Increased accuracy of DL-based DNA decoding and reduced training time using NVIDIA A100

Our team were granted the following honor:

- **1st place** crowned the overall champion trophy
- Best Big Data Analytics Performance Award
- A reserved slot at 2023 ISC in Germany

3 Skills

Languages `C/C++`, `Python` (main ones), `JavaScript`, `Verilog` (less-familiar), `Go`, `Lua`, `Ruby`, `Rust`, `Java`

Tools & Libraries Git, Unix-like OSs & shells, Docker, MPI, OpenMP, CUDA, Google Cloud

[1] `https://www.hpcadvisorycouncil.com/2022_APAC_HPC_AI%20Competition%20Result_Announcement_PR.pdf`