# Résumé

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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 **4.21** Fall 2021, my 1st semester *with 28 credits*, ranking **2nd**/45 in class and **6th**/130 in department
  Overall GPA of **4.09** in freshman year

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

### 2.2 High-Performance Computing Competitions

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

*https://github.com/nevikw39/

#### 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 sequence 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 Experiences

## 3.1 Teaching Assistant

- Served as TA for Introduction to Programming II in Spring 2022 as a freshman
  Expected to be TA again in Spring 2023
- Main task was to design online judge problems, which improved expertise & mastery in **data structures** & **algorithms**

## 3.2 Lecturer of Study Group

- Joined Teaching Div. of CS Student Assoc. in sophomore year
  Contributed to CSST *(CS STudents)*, a study group providing basic tutorials to students
- Lectured two ones on Linux terminal environments and Markdown & LaTeX

# 4 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

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