

Chao-Ting Chen

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EDUCATION

National ChengChi University	Taiwan, Taipei
<i>Bachelor's of Science in Computer Science</i>	Sep 2021 – Jun 2025
Double Major in Digital Content and Technologies	
• Cumulative GPA: 4.20/4.3	
> Dean's List , Top 3% in College/Department	Oct 2024
> Excellence Award in Computer Structure and Organization , Ranked 1st in class	May 2024
> Dean's List , Top 3% in College/Department	Oct 2023
> Excellence Award in Data Structure , Ranked 1st in class	May 2023

TEACHING EXPERIENCE

Teaching Assistant of Natural Language Processing	Mar 2025 – Jun 2025
Teaching Assistant of Computer Programming	Sep 2023 – Jun 2024

RESEARCH EXPERIENCE

Academia Sinica (National Academic of Taiwan)	Jul 2022 – Current
<i>Scholarship Researcher</i> , Advisor: Associate Research Fellow/Professor Huang, Hen-Hsen	
• Conducted extensive research in the field of Natural Language Processing (NLP), resulting in multiple peer-reviewed publications .	
• Conducted research on Cache-Augmented Generation, presented at The Web Conference 2025.	
• Designed a system that integrates multiple models to enhance information graphics, presented at International Joint Conference on Artificial Intelligence 2024.	
National Science and Technology Council	Mar 2022 – Jul 2025
<i>Researcher</i> , Advisor: Scientist Lin, Yu-Cheng	
• Developed a multifunctional quantum annealing tool with C/C++ and Rust to assist students in studying quantum heuristic algorithms.	
• Applied and successfully selected for the College Student Research Scholarship , with a 30% to 40% selected rate over the years.	
• Combined computer science and computational physics to conduct in-depth research on the significance and effectiveness of Hamiltonian in computing.	
• Completed and published the research paper “Multifunctional Quantum Annealing Toolkit and Its Applications”	
National Chengchi University (NCCU)	Mar 2024 – Feb 2025
<i>Student</i> , Advisor: Professor Tsai, Ming-Feng	
• Developed a full stack web app and the entire system that integrated laws and fine-tuned language models, which assist the public with legal-related inquiries.	
• Combined the whole Laws & Regulations Database of The Republic of China (Taiwan), Retrieval-Augmented Generation (RAG) and fine-tuned model to achieve 80% accuracy in legal statute citations .	

WORK EXPERIENCE

Datacenter AI System Firmware Research Department Intern	Jul 2025 – Current
Intel Corp.	Taipei, Taiwan
• Maintain a multi-host monitoring system, automating daily operations and test data; Integrated DevOps tools to accelerate the development and deployment process.	
• Conduct research on CPU/GPU acceleration and power consumption for model inferences on Intel chips.	
• Conduct research to accelerate LLMs serving on hardware by disaggregating the prefill, reasoning and decoding stage.	

Software Engineer Intern

MediaTek, Inc

Jul 2024 – Dec 2024

Taipei, Taiwan

- Conducted research on Android Graphics and issues related to CPU workload.
- Applied Reinforcement Learning in the firmware layer to forecast CPU workload, successfully reduced peak CPU load by 20%.
- Constructed a system that uses Machine Learning and Language Models to preserve known knowledge; assisted engineers in analyzing, accelerating development, and debugging.

PUBLICATIONS

- **Chao-Ting Chen**, Hen-Hsen Huang. *Integrating LLM, VLM, and Text-to-Image Models for Enhanced Information Graphics: A Methodology for Accurate and Visually Engaging Visualizations* International Joint Conference on Artificial Intelligence (IJCAI) 2024
- **Chao-Ting Chen**, Yu-Cheng Lin. *Multifunctional Quantum Annealing Toolkit and Its Applications* National Science and Technology Council 2025 Track
- Brian J Chan*, **Chao-Ting Chen***, Jui-Hung Cheng*, Hen-Hsen Huang. *Don't Do RAG: When Cache-Augmented Generation is All You Need for Knowledge Tasks* International World Wide Web Conference (WWW) 2025
- Brian J Chan, Jui-Hung Cheng, Mao Xun Huang, **Chao-Ting Chen**, Hen-Hsen Huang. *Efficient Beam Search for Large Language Models Using Trie-Based Decoding* Empirical Methods in Natural Language Processing (EMNLP) 2025

ONGOING WORK

- **Chao-Ting Chen***, Guan Zhi Wang*, Jui-Hung Cheng, Hen-Hsen Huang. *Tools vs. Tokens: Evaluating Tool-Augmented Reasoning for Efficient Mathematical Problem Solving with Language Models* [Under review at Association for the Advancement of Artificial Intelligence (AAAI) 2026]
- **Chao-Ting Chen***, Guan Zhi Wang*, Hen-Hsen Huang. *From Unsupervised to User-Centric: Intent-Aligned Clustering with Large Language Model* [Under review at The ACM Web Conference (WWW) 2026]

AWARDS & HONORS

Best Special Topics on Computer Science , Final Project Competition, College of Informatics, NCCU	Sep, 2024
1st place , 2022 Game Design Hackathon, BlackHole Creative Co., Ltd.	Oct 2022
Qualified for the final , National College and University Software Design Competition, National Taiwan Normal University	Oct 2022
2nd Place , NCCU Business Start-up Competition, NCCU Entrepreneur Association	May 2022
Top 20 in the entire school , Calculus General Examination, Applied Mathematics Dept., NCCU	Jan 2022
Best Senior Band (1st Place) of World Association of Marching Show Bands (WAMSB)	Sep 2019
World Champion @ Calgary, Canada	

EXTRACURRICULAR ACTIVITIES

College Delegate/Valedictorian , National ChengChi University	June 2025
Member , Student Council, NCCU	Sep 2024 – Jun 2025
President , Magic Club, NCCU	Sep 2021 – Jun 2024
Leader of Technology Team , Google Developer Groups on Campus	Sep 2021 – Sep 2022
Indie Developer , Side Project: Past-Papers Web	Sep 2021 – Jun 2022
Trumpet Player , Chienkuo Marching Band	Aug 2018 – Aug 2019

SKILLS

- **Programming Languages:** JS/TS, HTML/CSS, C/C++, Rust, Golang, Python, Shell Script
- **Technologies:** Git, UNIX, Docker, NGINX, Caddy
- **Web/Mobile Dev:** ReactJs, Tailwind, htmx, React Native, SwiftUI
- **Machine Learning:** Pandas, mlxtend, sklearn, transformers, Pytorch
- **Database:** Relational Database, MongoDB, Apache Cassandra
- **Cloud Services:** Google Cloud, Digital Ocean, Cloudflare