



## Education

M.S., Computer Science and Information Engineering,

National Taipei University of Technology

Fall 2024 ~ Present

GPA: 4.0 / 4.0



## Works

1. Teaching Assistant, Linear Algebra (Fall 2024 & Spring 2025) @國立臺北科技大學 電資學院 &資訊工程系  
Assisted in grading, managing course materials, and supporting student learning.
2. Laboratory Network Administrator @國立臺北科技大學 資訊工程系 視訊編碼實驗室  
Maintained servers, managed network systems, and ensured cybersecurity for the lab environment.
3. Continuing Education High School Substitute Teacher @新北市立三民高級中學 進修高中部 二年級  
Taught introductory Python programming and supervised the Advanced Computer Club, covering Generative AI for text-to-image creation, web development, and image/video processing and editing.
4. Continuing Education Junior High School Substitute Teacher @新北市立碧華國民中學 九年級  
Taught Scratch, Python, and GenAI literacy and applications, fostering students' interdisciplinary thinking and interests' integration, as well as developing their prompt engineering skills.

## Publication Internation Conference

- [1] Y.-C. Chang\*, Y.-X. Lin, Y.-C. Lung, and W. Chien\*, "Vision-based Real-time Sign Spelling System for Cross-lingual Translation using Neural Models," *accepted for presentation in Proc. of the 2025 IEEE International Conference on Computation, Big-Data and Engineering*, Jun. 2025. (First Author & Oral Presenter, Best Conference Paper Award)
- [2] Y.-C. Chang\*, "Pixel-Level Cryptographic Hashing for Image Authentication and Recovery," *accepted for presentation in Proc. of the 2025 IEEE International Conference on Computation, Big-Data and Engineering*, Jun. 2025. (Sole-authored Work & Poster Presenter)
- [3] Y.-C. Chang\*, H.-Y. Gu, Z.-R. Wu, Z.-Q. Chang, L.-C. Chen, W.-L. Willam Cheong, X.-Y. Lim, and W. Chien\*, "Modular Model Stacking Based on YOLO: A Novel Approach for Model Extension Without Retraining," *accepted for presentation in Proc. of the 2025 IEEE International Conference on Computation, Big-Data and Engineering*, Jun. 2025. (First Author & Oral Presenter)
- [4] W.-M. Xie, C.-C. Yang, Z.-Y. Wei, Y.-X. Lin, Y.-C. Lung, L.-Z. Chen, Z.-R. Wu, Y.-C. Chang\*, and W. Chien\*, "AI-Driven Analysis of New Energy Technology Development and Strategic Planning in Asia from a Global Perspective," *accepted for presentation in Proc. of the 2025 IEEE International Conference on Computation, Big-Data and Engineering*, Jun. 2025. (Corresponding Author & Poster Presenter)



- [5] S.-T. Tsai, Z.-R. Wu\*, P.-H. Lin, C.-H. Chen, W. Chien, and Y.-C. Chang\*, “Comparative Analysis of Real-time Multi-person Pose Detection in Electrical Industrial Safety Scenarios using YOLOv8-Pose and OpenPose,” in *Proc. of 2024 IEEE 4<sup>th</sup> International Conference on Electronic Communications, Internet of Things and Big Data*, pp. 327-330, Apr. 2024. (Corresponding Author & Oral Presenter)
- [6] S.-T. Tsai, Z.-R. Wu, Y.-C. Chang\*, W.-H Lin, and W. Chien\*, “Leveraging Advanced Computer Vision for Hazardous Behavior Monitoring in Campus Safety Maintenance,” in *Proc. of 2024 IEEE 4<sup>th</sup> International Conference on Electronic Communications, Internet of Things and Big Data*, pp. 507-509, Apr. 2024. (Corresponding Author & Poster Presenter)
- [7] S.-T. Tsai, Y.-C. Chang\*, C.-Y. Huang, F.-Y. Yang, W. Chien, and Z.-R. Wu\*, “Using Real-time Integrated Computer Vision and Deep Learning for Advanced Factory Safety,” in *Proc. of 2024 IEEE 4<sup>th</sup> International Conference on Electronic Communications, Internet of Things and Big Data*, pp. 647-649, Apr. 2024. (Corresponding Author & Oral Present)
- [8] M.-H. Ho, S.-Y. Huang\*, Y.-C. Chang, and C.-W. Ruo, “An Outdoor Rescue System Using LoRa Communication Network,” presented at the *2023 IEEE 9<sup>th</sup> International Conference on Applied System Innovation*, Apr. 2023. (Co-Authors)
- [9] Y.-C. Chang, H.-W. Tsai\*, C.-Y. Huang, and Z.-R. Wu, “Based-on Computer Vision Applications for Bus Stop Passenger Detection Systems,” in *Proc. of 2023 IEEE 3<sup>rd</sup> International Conference on Electronic Communications, Internet of Things and Big Data*, pp. 152-154, Apr. 2023. (First Author & Oral Presenter, Best Conference Paper Award)
- [10] Y.-D. Chen and Y.-C. Chang\*, “AI-DAS: AI-Based Driving Assistance System for Scooters for Traffic Accident Avoidance,” in *Proc. of Engineering Proceedings*, vol. 55, no. 1, p. 58, 2023. doi: 10.3390/engproc2023055058, Jun. 2023. (Corresponding Author & Poster Present)

## Publication Domestic Conference

- [1] Yen-Da Chen, Yu-Cheng Chang\*, Hua-Wen Tsai\* “應用電腦視覺的手語注音符號辨識與影像分析研究,” in *Proc. of 2023 18<sup>th</sup> Workshop on Wireless, Ad-Hoc and Sensor Networks*, Aug. 2023. (Corresponding Author & Poster Presenter, Best Student Paper Award contender)
- [2] Yu-Cheng Lung, Yu-Xuan Lin, Yu-Cheng Chang\*, Hua-Wen Tsai\*, Yen-Da Chen “植基於多模態視覺感知網路於即時語意建構之手語轉譯研究,” in *Proc. of 2025 20<sup>th</sup> Workshop on Wireless, Ad-Hoc and Sensor Networks*, Aug. 2025. (Corresponding Author & Oral Presenter)
- [3] 蔡華文\*, 張育丞\*, 楊敦傑, 楊竣捷, 徐茂霖, “應用電腦視覺之大眾運輸維安輔助系統,” in *Proc. of 2023 Symposium on Digital Life Technologies*, May. 2023. (Corresponding Author & Poster Presenter)
- [4] 張哲唯\*, 林千瓏, 林郁芮, 江采淳, 陳紫菱, 張育丞, “基於心率之性向評估手機應用程式實作,” in *Proc. of Taiwan Academic Network Conference 2022*, “Dec. 2022. (Co-Authors)
- [5] Y.-D. Chen\*, H.-W. Tsai, Y.-Z. Liao, and Y.-C. Chang, “基於影像辨識之益智迷宮小遊戲,” in *Proc. of 2022 26<sup>th</sup> Mobile Computing Workshop*, Aug. 2022. (Co-Authors & Poster Presenter)

## Publication Book

李國憲, …, 張育丞, 李威儒《生成式AI素養全解: 從模型原理到教育應用的實戰教學書》, ISBN: 978-696-01-4422-7, Jul. 2025.



- I-MAS (Intelligent Moto Assistance System), NSTC 111-2813-C-262-010-E, 2022/07/01~2023/02/28.
- I-MAS 2.0 (Intelligent Moto Alert System), NSTC 112-2813-C-262-010-E, 2023/07/01~2024/02/28.

## Awards

## Competition

- [1] 2025 捷運盃黑客松「設計創新」• AI 賦能App 競賽, “Nxt-Gen 捷運Go,” 進入決賽 (爭取前三名)
- [2] 2025 E化系統創新應用競賽, “基於骨架物件的多使用者即時於英文拼字翻譯的手語系統,” 第二名
- [3] 2025 E化系統創新應用競賽, “結合深度學習與即時電腦視覺於高級工場安全智慧化系統,” 優選 (第四名)
- [4] 2023 E化系統創新應用競賽, “應用於鐵路維安之智慧警示系統,” 第一名
- [5] 2023 第四屆大手攜小手智慧創新應用競賽, “應用於鐵路維安之智慧警示系統,” 季軍
- [6] 2022 車用電子創新發明競賽, “植基於深度學習之影像辨識智慧車輛輔助系統,” 第二名

## Awards

## Invention

- 2025 7th Green Idea Invention and Design Fair, “SmartCube Multidimensional Parking System,” Titanium Prize (The best 10% teams in all of the participating teams.), Aug. 2025
- 2025 Japan Design, Idea & Invention Expo, “Internet of Things Fire Alarm,” Gold Medal, Jul. 2025.
- 2024 International Warsaw Invention Show, “Charging Pile Frame To Prevent The Charging Cable From Falling Off,” Gold Medal, Oct. 2024.
- 2024 Japan Design, Idea & Invention Expo, “Four Seasons heating and cooling bed machine,” Gold Medal & Special Award, Jul. 2024.

## Awards

## Pitch

- The 9<sup>th</sup> International Youth Entrepreneurship Forum 2025, “智慧立體停車管理系統 - 高校空間利用與智能調度,” 決賽入圍獎 (佳作), Jul. 2025.
- ISPARK International Pitching Competition 2024, “Smart Vision Guard - Real-time AI Safety for Advanced Factories,” Outstanding Science and Technology Innovation Award, Sep. 2024

## Certification

- Python, Information Technology Specialist (ITS), Jun. 2023.
- Networking Fundamentals, Microsoft Technology Associate (MTA), Jun. 2021.
- 工業配線 丙級, 中華民國勞動部, Sep. 2018.

## Talk

- 國中生涯發展教育「九年級技藝教育課程學長姐經驗分享」講座, 新北市立三民高級中學, Jan. 2023.
- 新北市西區資訊種子教師研習暨全體教師研習「智慧你我 玩轉生活», 新北市政府教育局, 新北市蘆洲區鷺江國民小學, Oct. 2022.
- 新北市職業試探暨體驗教育中心【學期間】職業試探暨體驗教育活動, 新北市立淡水高級商工職業學校, Oct. 2022.
- 新北市高級中等學校學科能力精進暨雙連學制推動計劃「科展認識與方向探索」學生講座, Sep. 2022.
- 「十年科展, 十年夢」教師研習講座, 新北市立淡水高級商工職業學校, Aug. 2022.
- 國中生涯發展教育「校友返校升學經驗分享」講座, 新北市立淡水高級商工職業學校, Jun. 2020.

