

**Advisor:** Dr. Yen-Yu Lin

**International Conference:** International Conference on Computer Vision (ICCV)

**The Significance of the conference:** The International Conference on Computer Vision (ICCV) is one of the most influential and important conferences in the field of computer vision. Held biennially, it brings together leading scholars, researchers, and engineers from around the world to discuss the latest research findings, technological advancements, and innovative applications in computer vision. For ICCV 2023, the paper acceptance rate is 26.15%.

**The experience of Su-Kai Chen:** I am extremely happy and honored to have had the opportunity to challenge myself with submissions to international conferences during my time as a student. I am especially grateful to my advisor, Professor Yen-Yu Lin, and to the outstanding seniors and engineers he found to provide us with guidance. The experience I gained from the submission process has been invaluable. It taught me the essential skills and mindset needed for research. In every meeting, Professor Lin and the seniors would share with us the areas to pay attention to in our research, as well as the directions for improvement in our studies. Actively participating in each meeting allowed me to learn a great deal. Writing the paper and going through the rebuttal process with reviewers enabled me to thoroughly assess my understanding of the research topic and evaluate whether there were any oversights in my thinking and execution. I feel very fortunate to have joined Professor Lin's lab and to have conducted efficient research with a group of outstanding scholars, which was an experience I never imagined before entering NYCU. If given the chance in the future, I will continue to challenge myself with submissions to international journals, as it is immensely beneficial for my personal growth and the accumulation of professional knowledge.

**Title:** Improving Robustness for Joint Optimization of Camera Poses and Decomposed Low-Rank Tensorial Radiance Fields

**Authors:** Bo-Yu Cheng, Wei-Chen Chiu, Yu-Lun Liu

**Advisors:** Dr. Wei-Chen Chiu, Dr. Yu-Lun Liu

**International Conference:** Conference on Artificial Intelligence (AAAI 2024)

**The Significance of the conference:** The AAAI Conference on Artificial Intelligence (AAAI) is one of the leading international academic conferences in artificial intelligence held annually. It ranks 4th in terms of H5 Index in Google Scholar's list of top AI publications, after ICLR, NeurIPS, and ICML. The acceptance rate of AAAI 2024 is 23.75% (2342/9862).

**The experience of Bo-Yu Cheng:** I am grateful to

Professors Wei-Chen Chiu and Yu-Lun Liu for their guidance and leadership. I feel very fortunate that during my master's program, I was able to experience the research process in the field of computer vision, from brainstorming topic ideas to iterative implementation and verification, and then to integration and presentation of results. I also participated in paper submission reviews and defenses, and finally, the publication and promotion of the paper. Looking back, I encountered many setbacks, especially during the method implementation and verification phase, where I often felt a sense of urgency and helplessness. Through continuous attempts and revisions, I was fortunate to ultimately produce concrete results. I believe that this experience has not only advanced my academic knowledge but also strengthened my willpower and execution abilities.

**Title:** MENTOR: Multilingual tExt detection TOWard leaRning by analogy

**Authors:** Hsin-Ju Lin, Tsu-Chun Chung, Ching-Chun Hsiao, Pin-Yu Chen, Wei-Chen Chiu, and Ching-Chun Huang

**Advisors:** Dr. Ching-Chun Huang, Dr. Wei-Chen Chiu

**International Conference:** IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2023

**The Significance of the conference:** IROS is one of the top international conferences in the field of intelligent robots and systems, aiming to explore the cutting edge of technology in the field of intelligent robots and smart machines, emphasizing future directions as well as the latest methods, designs, and outcomes. This year's IROS theme is "Next Generation Robotics." A total of 2760 papers were submitted this year.

**The experience of Hsin-Ju Lin:** Although being a master's student does not necessarily require submitting papers, I am still deeply grateful for the guidance and encouragement provided by my two professors throughout this journey. Whenever I felt lost, they always reassured me that there was no need to worry too much. With their support, I was not only fortunate enough to have my paper accepted by IROS, but I also had the opportunity to attend the conference in the United States in person. This experience profoundly made me realize that outstanding scholars and researchers from all over the world are diligently working on their research. By interacting with participants from different countries, I gained more inspiration and reflection on my future plans. Therefore, I would like to encourage everyone to try submitting their work and attending these international conferences if they have the opportunity. It is not only an opportunity for academic exchange but also a valuable experience.

本刊每學期發刊一期，做為本院師生與系友、家長、院友的溝通橋樑。每期報導本院近期研究現況，內容包括人事動態、國際交流、師生獲獎等。期能經由本刊使讀者掌握資訊學院最新動態，促進彼此互動。

Published twice per year, this periodical, as a bridge between faculty, students, alumni, parents and friends of the college, is dedicated to the latest research updates, including personnel changes, international collaboration, faculty & students honors, etc., in order to assist readers to keep update of the latest developments of the College of Computer Science (CCS) and encourage mutual interaction.



吳毅成副院長致贈王豐堅老師 (左) 感謝狀

一、人事動態

- ◇ 自 112 年 12 月起，蔡孟勳教授擔任本校資訊技術服務中心副主任。113 年 2 月起，詹力韋教授擔任國際處國際合作組組長。
- ◇ 本院資訊工程學系王豐堅教授於 113 年 2 月退休，感謝老師對軟體工程的教學與研究貢獻良多，希望老師能常回系上傳承經驗。

二、國際交流

- ◇ 美國超微 (Supermicro) 技術部高級副總裁 (Senior Vice President of Technology) Tau Leng 博士於 2023 年 10 月 25 日至本院演講，講題為：「Building AI/ML Infrastructures - Challenges, Opportunities, and Emerging Trends」。
- ◇ 德國亥姆霍茲資訊安全中心 (CISPA Helmholtz Center for Information Security) Mario Fritz 教授於 2023 年 11 月 2 日至本校演講，講題為：「Trustworthy AI and A Cybersecurity

Perspective on Large Language Models」。

- ◇ 日本連續創業家 Sachio Semmoto 博士於 2023 年 11 月 22 日至本系演講，講題為：「The way of life as a serial entrepreneur」。
- ◇ 中國香港城市大學 (City University of Hong Kong) 方玉光教授於 2023 年 12 月 13 日至本系演講，講題為：「Leverage Vehicles to Build a Multi-dimensional Resource Network for Smart Cities」。
- ◇ 美國喬治亞理工學院 (Georgia Institute of Technology) 李彥輯博士於 2023 年 12 月 13 日至本系演講，講題為：「生成式 AI 在智慧型手機上的應用大未來」。
- ◇ 新加坡科技設計大學 (Singapore University of Technology and Design) Tony Q.S. Quek 博士於 2023 年 12 月 14 日至本院演講，講題為：「The Role of Federated Learning in a Wireless World of Foundation Models」。



- ◇ 美國印第安那大學 (Indiana University) David J. Crandall 教授於 2023 年 12 月 19 日至本院演講，講題為：「Egocentric Computer Vision, for Fun and for Science」。
- ◇ 美國德州大學奧斯汀分校 (The University of Texas at Austin) Chen Yu 教授於 2023 年 12 月 19 日至本院演講，講題為：「Learning in Humans and Machines: Two Sides of the Same Coin or Not」。
- ◇ 美國威斯康辛大學麥迪遜分校 (University of Wisconsin Madison) Parmesh Ramanathan 教授於 2023 年 12 月 20 日至本院演講，講題為：「Privacy-Aware Computing on Public Cloud Systems」。
- ◇ 2024 年 2 月 27 日美國馬里蘭大學訪問團拜訪本校，洽談未來 AI 研究趨勢以及產業發展之合作可能性。
- ◇ 2024 年 3 月 15 日耶魯大學訪問團蒞臨本校，進行學術交流。

### 三. 教師榮譽

- ◇ 劉育綸教授榮獲 2024 Google Research Scholar Award!
- ◇ 陳健教授榮獲 112 年度資訊工程學門優良計畫執行成果獎！
- ◇ 嚴力行教授榮獲 112 年度資訊工程學門優良計畫執行成果獎！
- ◇ 邱維辰教授榮獲中央研究院 2023 年「年輕學者研究成果獎」！
- ◇ 李奇育教授、張永儒教授榮獲第一屆資訊年輕學者卓越貢獻獎！

### 四、學生榮譽

- ◇ 袁賢銘教授指導蔡佩芬、廖家鴻同學榮獲 2024 EDITOR'S CHOICE ARTICLES!
- ◇ 袁賢銘教授指導高振群同學參與 AI CUP 2023 【圍棋棋力模仿與棋風辨識競賽】獲得競賽優等！
- ◇ 吳毅成教授指導蔡昀叡同學參與 AI CUP 2023 【圍棋棋力模仿與棋風辨識競賽】獲得競賽佳作！
- ◇ 吳毅成教授指導桂泓同學榮獲 2023 年中華民

國資訊學會博士論文佳作獎！

- ◇ 嚴力行教授指導王靖瑄同學榮獲 2023 年中華民國資訊學會碩士論文佳作獎！
- ◇ 蕭旭峰教授指導 Rashid Ali 同學榮獲 IEEE VCIP 2023 Best Paper Award!
- ◇ 陳健、陳志成、易志偉教授指導陳冠文、何配瑜、顏嘉俊、周承淵、黃子潔、李昕穎同學榮獲 2023 年 5G 創新應用大賽校園組季軍！
- ◇ 李奇育教授指導許仁杰、潘成泰、羅之謙、林峻賢同學榮獲 2023 年 5G 創新應用大賽校園組最佳技術獎！
- ◇ 嚴力行教授指導王靖瑄同學榮獲 2023 年台灣作業研究學會碩博士論文競賽碩士組優勝！
- ◇ 桂泓、郭家瑋、王廣達同學榮獲中華民國人工智慧學會 112 年度碩博士論文獎！
- ◇ 黃俊穎教授指導林祐聖、林宇翔、尤理衡同學參與 2023 年行政院國家資通安全會報跨國攻防演練表現優異，榮獲第一名佳績！
- ◇ 李奇育教授指導李茵淇、陳任呈、余梓萁、戴翊安同學榮獲 2023 年通訊大賽聯網未來挑戰賽「評審團特別獎」！
- ◇ 彭文孝教授指導陳璽存同學榮獲 2023 第十六屆崇越論文大賞特優論文獎！
- ◇ 黃俊穎教授指導林宇翔、尤理衡同學榮獲第四十七屆國際技能競賽青年組網路安全職類正取國手資格！
- ◇ 彭文志教授、王威堯同學榮獲教育部體育署 112 年度運動科學研究發展甲等獎勵
- ◇ 黃俊龍教授指導徐煜倫、蔡育呈、劉力勳、王偉誠同學榮獲 TON 開發者系列工作坊 Demo Day 季軍！

### 1. Personnel Changes

- Dr. Meng-Hsun Tsai has been appointed as the Deputy Director of the Information Technology Service Center, NYCU, effective December 1st, 2023. Dr. Liwei Chan has been appointed as the Head of the Division of International Collaboration, the Office of International Affairs, NYCU, effective February 1st, 2024.

- Dr. Feng-Jian Wang, Professor of the Department of Computer Science, retired on February 1st, 2024. Thank you for your valuable contributions to software engineering teaching and research. We look forward to Professor Wang's frequent visits to share experiences with us.

### 2. International Collaboration

- Dr. Tau Leng, Senior Vice President of Technology at Supermicro, USA, gave a lecture at our college on October 25, 2023. The topic of the lecture was "Building AI/ML Infrastructures - Challenges, Opportunities, and Emerging Trends."
- Professor Mario Fritz from CISA Helmholtz Center for Information Security, Germany, gave a lecture at NYCU on November 2, 2023. The topic of the lecture was "Trustworthy AI and A Cybersecurity Perspective on Large Language Models."
- Serial Entrepreneur Dr. Sachio Semmoto gave a lecture at our department on November 22, 2023. The topic of the lecture was "The way of life as a serial entrepreneur."
- Professor Yuguang Fang from the City University of Hong Kong, China, gave a lecture at our department on December 13, 2023. The topic of the lecture was "Leverage Vehicles to Build a Multi-dimensional Resource Network for Smart Cities."
- Dr. Yen-Chi Lee from Georgia Institute of Technology, USA, gave a lecture at our department on December 13, 2023. The topic of the lecture was "the future of Generative AI applications in smartphones."
- Dr. Tony Q.S. Quek from Singapore University of Technology and Design gave a lecture at our college on December 14, 2023. The topic of the lecture was "The Role of Federated Learning in a Wireless World of Foundation Models."
- Professor David J. Crandall from Indiana University, USA, gave a lecture at our college on December 19, 2023. The topic of the lecture was "Egocentric Computer Vision, for Fun and for Science."
- Professor Chen Yu from the University of Texas at Austin, USA, gave a lecture at our college on December 19, 2023. The topic of the lecture

was "Learning in Humans and Machines: Two Sides of the Same Coin or Not."

- Professor Parmesh Ramanathan from the University of Wisconsin Madison, USA, gave a lecture at our college on December 20, 2023. The topic of the lecture was "Privacy-Aware Computing on Public Cloud Systems."
- On February 27, 2024, a delegation from the University of Maryland, USA, visited NYCU to discuss potential cooperation in future research directions for AI and industrial development.
- On March 15, 2024, a delegation from Yale University visited NYCU for academic exchange.

### 3. Faculty Honors

- Professor Yu-Lun Liu won the 2024 Google Research Scholar Award.
- Professor Chien Chen has been awarded the 2023 Excellent Project Execution Achievement Award by the Computer Science & Information Engineering Program, Department of Engineering and Technologies, NSTC, Taiwan.
- Professor Li-Hsing Yen has been awarded the 2023 Excellent Project Execution Achievement Award by the Computer Science & Information Engineering Program, Department of Engineering and Technologies, NSTC, Taiwan.
- Professor Wei-Chen Chiu was honored with the 2023 Academia Sinica Early-Career Investigator Research Achievement Award.
- Professors Chi-Yu Li and Yung-Ju Chang were awarded the 1st Outstanding Contribution Award for Young Scholar in NYCU Computer Science.

### 4. Students Honors

- Pei-Fen Tsai and Chia-Hung Liao, advised by Professor Shyan-Ming Yuan, have received the 2024 Editors' Choice Awards
- Chen-Chun Kao, advised by Professor Shyan-Ming Yuan, participated in the "Go Chess Skill Imitation and Chess Style Recognition Competition" and won the Excellence Award!
- Yun-Jui Tsai, advised by Professor I-Chen Wu, participated in the "Go Chess Skill Imitation and Chess Style Recognition Competition" and won the Honorable Mention Award!



- Hung Guei, advised by Professor I-Chen Wu, has won the 2023 IICM Ph.D. Dissertation Award.
- Jing-Xuan Wang, advised by Professor Li-Hsing Yen, has won the 2023 IICM Master Thesis Award.
- Rashid Ali, advised by Professor Hsu-Feng Hsiao, has won the IEEE VCIP 2023 Best Paper Award.
- Guan-Wen Chen, Pei-Yu Ho, Chia-Chun Yen, Cheng-Yuan Chou, Tzu-Chieh Huang, and Hsin-Ying Lee, advised by Professors Chien Chen, Jyh-Cheng Chen, and Chih-Wei Yi, secured the third place in the 2023 Chunghwa Telecom 5G Innovation Application Contest, Campus Category.
- Ren Chieh Hsu, Tan Tai Phan, Zhi Qian Luo, and Chun-Hsien Lin, advised by Professor Chi-Yu Li, have won the Best Technical Award in the 2023 Chunghwa Telecom 5G Innovation Application Contest, Campus Category.
- Jing-Xuan Wang, advised by Professor Li-Hsing Yen, has won first place in the master's category in the 2023 ORSTW Thesis Competition.
- Hung Guei, Chia-Wei Kuo, and Kuang-Da Wang, have won the 2023 TAAI Paper Award.
- Yu-Sheng Lin, Yu-Hsiang Lin, and Jasper Yu, advised by Professor Chun-Ying Huang, have won first place in the Cyber Offensive and Defensive Exercise (CODE 2019) by the Department of Cyber Security of the Executive Yuan.
- Yin-Chi Li, Ren Cheng Chen, Zi Qi Yu, and Yi-An Tai, advised by Professor Chi-Yu Li, have won the Special Jury Award for 2023 Mobileheroes - Connectivity Innovation Challenge.
- Si-Cun Chen, advised by Professor Wen-Hsiao Peng, has won the Excellent Master Thesis Award from the Sixteen TSC Thesis Award.
- Yu-Hsiang Lin and Jasper Yu, advised by Professor Chun-Ying Huang, have secured positions to represent Taiwan in the Youth Category for Network Security at the 47th WorldSkills Competition.
- Professor Wen-Chih Peng and Wei-Yao Wang won the first-place trophy in the 2023 Sports Science Research and Development competition organized by the Sports Administration, Ministry of Education.
- Yu-Lun Hsu, Yu-Cheng Tsai, Li-Xun Liu, and Wei-Cheng Wang, advised by Professor Jiun-Long Huang, secured third place at the Ton Demo Day organized by TON Blockchain Hacker House.



## 院長的一封信

親愛的朋友：

本院結合陽明交通大學最完整的優秀師資，為全國最具規模與研究能量之資訊科系，致力於培育具前瞻視野的資訊產業人才。為朝永續經營前進，本院歡迎校友、家長與企業捐款贊助，也期盼關心本系、資訊教育的各界友人能夠響應，有您的齊力參與，是本院邁向卓越的關鍵力。期許未來有更多捐款做為學院向上提升的動力。敬祝大家平安健康，萬事如意。

國立陽明交通大學 資訊學院院長

陳志成 敬上



## 募款計畫 資心專案／出國交換獎學金

本院肩負培育國內外資訊領域一流人才重任，全球競爭日趨白熱，若在學生時期及早培養國際觀與視野，更能提升未來的競爭力。是以本院積極推動「資心專案/交換生募款計畫」，校友慷慨溫暖捐款，期能提升在校學子國際化競爭力，燃起更多學生參與國際舞台並貢獻台灣的想法。自2014年起已有近78位學生受惠於本募款計畫，2023至2024年間目前共有15位學生至瑞士蘇黎世聯邦理工學院、捷克布拉格捷克理工大學、德國慕尼黑工業大學、阿亨工業大學、美國伊利諾大學香檳分校、卡內基美隆大學等姐妹校交換。

