CHENG CHIEN

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Education

September 2022 - 2024

Master of Science,

National Yang Ming Chiao Tung University, Taiwan, ROC

September 2018-June 2022

Bachelor of Science,

National Sun Yat-sen University,

Taiwan, ROC

Computer Science

4.19 / 4.3 GPA

Computer Science and Engineering

4.01 / 4.3 GPA

Projects

Machine Learning

- Implement a system combine learned image compression codec and MLLMs
- Implement Conditional VAE for Video Prediction

Software Security

· The Study and Implementation of Secure Device Pairing and Access Control for Smart IoT Devices

Network

- Implementation of TCP Protocol using UDP
- Huffman Compression Algorithm

School **Activities**

September 2020 - June 2021 North Alumni Association. National Sun Yat-sen University, Taiwan, ROC

Febuary 2019 - February 2023 Taiwan Happy Coding Promotion Association, Taiwan, ROC

Director

- Hosted events for over 100 people
- · Organized numerical activities of our association

Outreach Instructor

 Promoting programming skills and inspiring Taiwanese children through engaging tech education.

Publications

- · C.H. Kao, C. Chien, Y.J. Tseng, Y.H. Chen, A. Gnutti, S.Y. Lo, W.H. Peng, R. Leonardi, "ComNeck: Bridging Compressed Image Latents and Multimodal LLMs via Universal Transform-Neck," arXiv preprint arXiv:2407.19651, 2024.
- Y.H. Chen, Y.C. Weng, C.H. Kao, C. Chien, W.C. Chiu, W.H. Peng, "TransTIC: Transferring Transformer-based Image Compression from Human Visualization to Machine Perception," IEEE International Conference on Computer Vision (ICCV), Oct. 2023.
- M.J. Chen, H.S. Xie, C. Chien, W.H. Peng, H.M. Hang, "Learned Hierarchical B-frame Coding with Adaptive Feature Modulation for YUV 4:2:0 Content," IEEE International Symposium on Circuits and Systems (ISCAS), May 2023.
- C.H. Kao*, Y.H. Chen*, C. Chien, W.C. Chiu, and W.H. Peng, "Transformer-based Image Compression with Variable Image Quality Objectives," Asia-Pacific Signal and Information Processing Association (APSIPA), Oct. 2023.

Honors and **Awards**

- Top Creativity AwardTop Creativity Award, IEEE ISCAS
- Taiwan Imaging-Tek Corporation Scholarship
- · Excellent Student Awards, NSYSU
- Calculus Contest Awards, NSYSU
- · Cathay Financial Holdings Customer-Children Scholarship
- New Taipei City Apartment Building Management Services Occupational Union Scholarship

Skills

Python, C++, Machine Learning, Multimodal Large Language Model, Image Compression

Certifications

2021

Happy Coding Promotion Association

2020 TOEIC

2019 CPE

Outreach Instructor

Inspiring Taiwanese kids through fun tech education

TOEIC Blue Score 845

Advanced Level

Collegiate Programming Examination