





# CHIU, Yat Fei Aemon (趙逸飛)

PhD Candidate in the Department of Electronic Engineering Resident Tutor, Chan Chun Ha Hostel, United College The Chinese University of Hong Kong Sha Tin, New Territories, Hong Kong → +852-5161-7183

aemon.yf.chiu@link.cuhk.edu.hk
Personal Website
GitHub Profile
LinkedIn Profile

## RESEARCH INTERESTS

My research focuses on the analysis and application of speaker embeddings and representations, particularly in the context of text-to-speech (TTS) synthesis. I am especially interested in developing and exploring code-mixed Cantonese TTS systems, aiming to enhance naturalness and intelligibility in multilingual speech synthesis.

## **EDUCATION**

#### The Chinese University of Hong Kong, Hong Kong

2023 - Present

PhD Candidate, Doctor of Philosophy in Electronic Engineering (Supervisors: Prof Tan Lee and Prof Qiuqiang Kong)

GPA: 3.608 / 4.000

- Research focus: speech processing, deep learning, Cantonese, natural language processing, & computer vision.
- Coursework: Speech and Language Processing, Audio Signal Processing, Generative AI, & Pattern Recognition.

#### The Hong Kong Polytechnic University, Hong Kong

2019 - 2023

Bachelor of Engineering (Honours) in Electronic and Information Engineering | Minor in Applied Mathematics

GPA: 3.70 / 4.30

- Graduated with **First Class Honours** (GPA for Award: 3.74 / 4.30).
- Related coursework: Computational Intelligence and its Applications, Image and Audio Processing, Deep Learning and Deep Neural Networks, Computer Vision and Pattern Recognition, Linear Systems, Data and Computer Communications, Basic Circuit Analysis & Electronics, Probability and Engineering Statistics, Mathematics I & II.

## • University of Illinois Urbana-Champaign, United States of America

2022

Exchange Programme

GPA: 3.60 / 4.00

- Related coursework: Digital Signal Processing with Lab, Stochastic Processes & Applications, etc.

### RESEARCH EXPERIENCE

### Caritas Institute of Higher Education (currently Saint Francis University)

2022 - 2023

Face Recognition with Deep Learning (Supervisor: Emer Prof Wan-Chi Siu)

Hong Kong

- Deployed face recognition models using Principal Component Analysis (PCA) and deep convolutional neural networks (CNNs), and applied them to video-based face recognition tasks.
- Developed and evaluated a Generative Adversarial Network (GAN)-based face recognition model, exploring its
  potential for improved performance and robustness.

#### The Hong Kong University of Science and Technology

2022 - 2023

Masked Auto-encoder Based Self-Distilled Test Time Adaptation for Multi-label Throx Disease Classification (Supervisor: Dr Hao Chen)

) Hong Kong

Performed data pre-processing, model pre-training, and testing.

## · The Hong Kong Polytechnic University

2021 - 2022

Checking Privacy Compliance of Mobile Apps via Synthesizing NLP and Program Analysis (Supervisor: Prof Xiapu Luo)

Hong Kong

- Manually annotated mobile apps' privacy policy corpora. Segmented the privacy policy documents, identified the different elements in each sentence, and labelled them accordingly, mainly including the types of information to be collected, the purposes of collection, and whether the app would share the data.
- Assisted in testing and improving named-entity recognition analysis programs and codes.

# **ACADEMIC ACTIVITIES**

#### Voice Timbre Attribute Detection Challenge (vTAD) 2025

2025

The 20th National Conference on Human-Computer Speech Communication (NCMMSC 2025)

China

Developed WavLM-based systems for the vTAD task, achieving 2nd place in the Unseen-Speaker track and 4th place in the Seen-Speaker track.

### **PUBLICATIONS**

- Aemon Yat Fei Chiu, Kei Ching Fung, Roger Tsz Yeung Li, Jingyu Li, and Tan Lee, "A Large-Scale Probing Analysis of Speaker-Specific Attributes in Self-Supervised Speech Representations," submitted to the 2026 IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP 2026), under review, 2025.
- Aemon Yat Fei Chiu, Jingyu Li, Yusheng Tian, Guangyan Zhang, and Tan Lee, "CUHK-EE Systems for the vTAD Challenge at NCMMSC 2025," accepted at China's 20th National Conference on Human-Computer Speech Communication (NCMMSC 2025), 2025.
- Jingyu Li\*, **Aemon Yat Fei Chiu**\*, and Tan Lee, "An Investigation of Reprogramming for Cross-Language Adaptation in Speaker Verification Systems," in *Proceedings of the 14th International Symposium on Chinese Spoken Language Processing (ISCSLP 2024)*, Beijing, China, Nov. 2024, pp. 388-392. (\*equal contribution)
- Kaifa Zhao, Le Yu, Shiyao Zhou, Jing Li, Xiapu Luo, **Yat Fei Aemon Chiu**, and Yutong Liu, "A Fine-grained Chinese Software Privacy Policy Dataset for Sequence Labeling and Regulation Compliant Identification," in *Proceedings of the 2022 Conference on Empirical Methods in Natural Language Processing (EMNLP 2022)*, Abu Dhabi, United Arab Emirates, Dec. 2022, pp. 10266–10277.





# **SKILLS**

- Languages: English (full professional working proficiency), Cantonese (native), Chinese (native).
- **Programming languages**: Python.

## **ACHIEVEMENTS**

• 2nd and 4th place – NCMMSC 2025 vTAD Challenge (Unseen/Seen-Speaker tracks).	2025
• Travel Grant Award (CNY1,500), ISCSLP 2024.	2024
• Dean's Honours List 2022/23.	2023
• Hong Kong, China – Asia-Pacific Economic Cooperation Scholarship (HKD10,000) 2021/22.	2022
<ul> <li>Hong Kong SARG Scholarship Fund – Talent Development Scholarship (HKD10,000) 2021/22.</li> </ul>	2022
<ul> <li>Hong Kong SARG Scholarship Fund – Reaching Out Award (HKD10,000) 2021/22.</li> </ul>	2022
• The Hong Kong Polytechnic University Scholarship (HKD40,000) 2021/22.	2022
• Wong Tit-shing Student Exchange Scholarship (HKD20,000) 2021/22.	2022
• The Hong Kong Polytechnic University Scholarship (HKD40,000) 2020/21.	2021
• Dean's Honours List 2020/21.	2021
• Dean's Honours List 2019/20.	2020
• Best GPA Award.	2020
Best Semester GPA Award.	2020



