

CHINPO CHEN

email:stu94116@gapp.nthu.edu.tw · phone:(+886)930669818

Website:<https://biic.ee.nthu.edu.tw/student.php?id=40>

Linkedin:www.linkedin.com/in/jackingchen

Address:C905 dorm Tsing,Service Center 1,NTHU,No.101,
Section 2, Kuang-Fu Road, Hsinchu, Taiwan 300044, R.O.C.



EDUCATION

National Tsing Hua University, Electronic Engineering, *PhD*, GPA: 3.9/4.3 2017.09 – now

National Tsing Hua University, Electronic Engineering, *bachelor*, GPA: 3.7/4.3 2011.09 - 2015.06

CAREER

National Tsing Hua University, Information Technology (IT) 2017.09 - 2022.03

- Duty: Lab computer server purchasing, installation, security, and web service establishment.

Duke Kunshan University, Intern 2018.07 - 2018.09

- Duty: Medical-AI solution development on diagnosis of Autism Spectrum Disorder

Industrial Technology Research Institute, Intern 2014.07 - 2014.09

- Duty: Assisting data collection and arrangement

SKILLS

- **4+ years** for AI solution development including: Speech Signal Processing, Natural Language Processing, Computer Vision, Statistical testing, and machine learning/Deep learning model development.
- **2+ Automatic Speech Processing (ASR)**: GMM-HMM model, TDNNf-HMM model, Transfer learning, Multi-task learning, Language model training
- Familiar with deep learning models such as: DNN, CNN, RNN, sequence-to-sequence model, etc
- Experienced in speech related applications: MFCC extraction, Speaker verification, Speaker Diarization, Viterbi Algorithm

PROJECT

Automatic speech recognition (ASR), <https://reurl.cc/vgkDLA>

- Develop using Kaldi as backend, managing project with gitlab CI/CD, Colaboration with other module by using Docker

Taiwanese forced aligner

- Use Kaldi as backend for ASR model training, and perform forced alignment on Taiwanese speech data

Taiwanese Hakka fluency assessment 分

- In this project I train a ASR model using HTK toolkit to extract the phone boundary from audio files that contains the examiner's pronunciation in the Taiwanese Hakka test.

Research: Developing AI solution for the assessment and diagnosis of Autism Spectrum Disorder

- Managing the cooperation project funded by the Ministry of Science and Technology
- Developing AI solution for assessment and diagnosis of Autism Spectrum Disorder. Including: Autism database collection, research design, technical research paper writhing; AI algorithm development including: Speech signal processing, Computer vision, Natural language processing, design of DNN model architecture,

TECHNICAL SKILLS

AI tools

pytorch、tensorflow、sklearn、Kaldi

Software coding & management

Shell script、linux、Python、C/C++、git、CI/CD

Cloud AI

AWS、Ansible、Docker

Language

Mandarin: Mother tongue、English: proficient (TOEFL ibt 97)

SPECIAL EXPERIENCES

The SLT 2021 children speech recognition challenge	2021
lecturing: Introduction to human center computing	2018 - 2019
Formosa Speech in the Wild	2018
Teaching assistant (probability, speech signal processing)	2017 - 2018
National Taiwan Normal University introduction to Python programming lecturer	2017
English presentation competition at Ritsumeikan University: IEEE Student Branch	2016

HONORS & AWARDS

Scholarship: Elite-Well Education Foundation Scholarship	2020
Scholarship: President Scholarship of NTHU	2017
Scholarship: FUJIFILM Business Innovation scholarship	2016
Scholarship: Jelinek Summer Annual (workshop) on Language Technologies (JSALT)	2015
• Johns Hopkins summer school & workshop: Annual summer school & workshop for speech signal processing	

PUBLICATIONS

PhD dissertation: **Measuring autism related atypical behavior signal using multimedia data toward diagnosis and assessment of Autism Spectrum Disorder**

- instructor: Chi Chun, Lee

Journal papers <first author>

- [1] **Chen, Chin-Po**, Susan Shur-Fen Gau, and Chi-Chun Lee. "Toward differential diagnosis of autism spectrum disorder using multimodal behavior descriptors and executive functions." *Computer Speech & Language* 56 (2019): 17-35. **Impact Factor: 2.116; Rank: 71/137 (2020)**
- [1] **Chen, Chin-Po**, Susan Shur-Fen Gau, Ho-hsien Pan and Chi-Chun Lee. "Using Measures of Vowel Space for ASD Communication Deficit Assessment and diagnosis" (To be submitted at IEEE Biomedical Engineering 2021)

Conference papers <first author>

- [2] **Chen, Chin-Po**, Tseng, X. H., Gau, S. S. F., & Lee, C. C. "Computing Multimodal Dyadic Behaviors During Spontaneous Diagnosis Interviews Toward Automatic Categorization of Autism Spectrum Disorder." *INTER-SPEECH*. 2017.
- [3] **Chen, Chin-Po**, Susan Shur-Fen Gau, and Chi-Chun Lee. "Learning Converse-Level Multimodal Embedding to Assess Social Deficit Severity for Autism Spectrum Disorder." 2020 IEEE International Conference on Multimedia and Expo (ICME). IEEE, 2020.

Conference papers <coauthor>

- [4] Liu, Y. S., **Chen, C. P.**, Gau, S. S. F., & Lee, C. C. (2018, April). Learning lexical coherence representation using LSTM forget gate for children with autism spectrum disorder during story-telling. In 2018 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP) (pp. 6029-6033). IEEE.

Google Scholar Profile <https://scholar.google.com.tw/citations?hl=zh-TW&user=eN1b04kAAAAJ>
