

# Chad(Hao-Chun), Yang

DOCTORAL STUDENT · DATA SCIENTIST

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“Make Impact.”

## Professional Interests

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Behavioral Signals · Affective Multimedia · Neural Images

## Education

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### NTHU(National Tsing Hua University)

PH.D. IN ELECTRICAL ENGINEERING

- Got a President Scholarship which is given to promising students in EE Dept.

*Hsinchu, Taiwan*

*July. 2016 - PRESENT*

### NTHU(National Tsing Hua University)

B.S. IN ELECTRICAL ENGINEERING

*Hsinchu, Taiwan*

*Sep. 2012 - July. 2016*

## Research Projects

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### The Effects of Task and Social Reflexivity on Group Performance

DATA SCIENTIST COOPERATED WITH <DEPT. BUSINESS ADMINISTRATION, NTU>

- Construct multi-modality multi-subjects group interaction dataset.
- Use linguistic and Physiological behavioral signals for group dynamics modeling.

*Taiwan*

*Sep. 2018 - PRESENT*

### Affective Physiological Responses under Multimedia Stimuli

DATA SCIENTIST RESEARCHER

- Improve physiological emotion recognition by 3.5% using individual-aware personalized modeling.
- Improve physiological personaality recognition by 8% through Auditorial-Visual guided graph learning.

*Taiwan*

*Sep. 2018 - PRESENT*

### AI in Health Education

DATA SCIENTIST COOPERATED WITH <NATIONAL TAIPEI UNIVERSITY OF NURSING AND HEALTH SCIENCES>

- Construct a large-scale medical education dataset.
- Develop medical educator training system from facial and linguistic data.

*Taiwan*

*Sep. 2019 - PRESENT*

### The Alzheimer Disease Analysis using Brain Imaging

DATA SCIENTIST COOPERATED WITH <NATIONAL HEALTH RESEARCH INSTITUTES>

- Brought neuroscientific insights into the brain's functional connectivity and the mechanism of face processing and memory.
- Modeling differential brain functions between subjects with high or low scoring ability to face identification from memory.

*Taiwan*

*Sep. 2016 - Sep. 2018*

## Enterprises Corporation

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### C-Media Electronics

DATA SCIENTIST

- Develop human-perceptual based AI de-reverberation de-noise algorithm.
- Developed efficiency-aware speech enhancement system with real-time inference.

*Taipei, Taiwan*

*Jan. 2020 - Present*

### Institute for Information Industry (III)

DATA SCIENTIST

- Develop a computer vision-based video retrieval system speeding up the fakenews screening process.
- The system would be deployed by two NGO fakenews checkers [Taiwan FactCheck Center](#) and [MyGoPen](#).

*Taipei, Taiwan*

*March. 2020 - Nov. 2020*

### beBit, Inc.

MACHINE LEARNING RESEARCHER

- Shopping conversion prediction based on user website browsing behaviors.
- Customer pattern recognition for automatically clustering user groups for precise marketing.

*Tokyo, Japan*

*Jan. 2018 - Jan. 2019*

## Gamania Digital Entertainment Co., Ltd.

MACHINE LEARNING ENGINEER

- Speech/Face modeling using multimodal user behavior profiling technique for AI hiring recommendation.
- Developed a Multi-person multi-modal real-time data collection system.

*Taipei, Taiwan*

*Sep. 2016 - Sep. 2018*

## Honors & Awards

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### INTERNATIONAL

2019 **Travel Grants**, 2019 ICASSP SPS Travel Grants

*IEEE Signal Processing  
Society (SPS)*

### DOMESTIC

2018 **Scholarship**, The Association for Computational Linguistics and Chinese Language Processing

*Taipei, Taiwan*

2018 **Scholarship**, Adbertech AI Scholarship

*Taipei, Taiwan*

2018 **Scholarship**, National Tsing Hua University President Scholarship

*Hsinchu, Taiwan*

2017 **2nd Award**, Winner of The Second TSC Marketing Symposium

*Taipei, Taiwan*

2015 **Scholarship**, Summer Academic Exchange Program

*Fudan University, China*

## Teaching Experience

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### National Tsing Hua University

TEACHING ASSISTANT

- 10720IMS503100: Artificial Intelligence and Entrepreneurship
- 10710EE366200: Digital Signal Processing Laboratory
- 10620EE306001: Probability
- 10610EE648500: Computer Vision

GOOGLE SCHOLAR PROFILE: [https://scholar.google.com/citations?user=P9G\\_-kcAAAAJ](https://scholar.google.com/citations?user=P9G_-kcAAAAJ)

### JOURNAL

- [1] A Media-Guided Attentive Graphical Network for Personality Recognition Using Physiology  
**Hao-Chun Yang** and Chi-Chun Lee  
*IEEE Transactions on Affective Computing* (2021) pp. 1–12021

### PEER-REVIEWED CONFERENCE/WORKSHOP PAPER

- [1] Woan-Shiuan Chien, **Hao-Chun Yang**, and Chi-Chun Lee, “Cross Corpus Physiological-based Emotion Recognition Using a Learnable Visual Semantic Graph Convolutional Network”  
*MM '20: The 28th ACM International Conference on Multimedia, ACM MM 2020, Virtual Event / Seattle, WA, USA, October 12-16, 2020*
- [2] Wan-Ting Hsieh, Jeremy Lefort-Besnard, **Hao-Chun Yang**, Li-Wei Kuo, and Chi-Chun Lee, “Behavior Score-Embedded Brain Encoder Network for Improved Classification of Alzheimer Disease Using Resting State fMRI”  
*42nd Annual International Conference of the IEEE Engineering in Medicine & Biology Society, EMBC 2020, Montreal, QC, Canada, July 20-24, 2020*
- [3] Ya-Lin Huang, Wan-Ting Hsieh, **Hao-Chun Yang**, and Chi-Chun Lee, “Conditional Domain Adversarial Transfer for Robust Cross-Site ADHD Classification Using Functional MRI”  
*2020 IEEE International Conference on Acoustics, Speech and Signal Processing, ICASSP 2020, Barcelona, Spain, May 4-8, 2020*
- [4] **Hao-Chun Yang** and Chi-Chun Lee, “A Siamese Content-Attentive Graph Convolutional Network for Personality Recognition Using Physiology”  
*2020 IEEE International Conference on Acoustics, Speech and Signal Processing, ICASSP 2020, Barcelona, Spain, May 4-8, 2020*
- [5] Wan-Ting Hsieh, **Hao-Chun Yang**, Fu-Sheng Tsai, Chon-Wen Shyi, and Chi-Chun Lee, “An Event-contrastive Connectome Network for Automatic Assessment of Individual Face Processing and Memory Ability”  
*IEEE International Conference on Acoustics, Speech and Signal Processing, ICASSP 2019, Brighton, United Kingdom, May 12-17, 2019*
- [6] **Hao-Chun Yang** and Chi-Chun Lee, “An Attribute-invariant Variational Learning for Emotion Recognition Using Physiology”  
*IEEE International Conference on Acoustics, Speech and Signal Processing, ICASSP 2019, Brighton, United Kingdom, May 12-17, 2019*
- [7] **Hao-Chun Yang** and Chi-Chun Lee, “Annotation Matters: A Comprehensive Study on Recognizing Intended, Self-reported, and Observed Emotion Labels using Physiology”  
*8th International Conference on Affective Computing and Intelligent Interaction, ACII 2019, Cambridge, United Kingdom, September 3-6, 2019*
- [8] Wan-Ting Hsieh, **Hao-Chun Yang**, Ya-Tse Wu, Fu-Sheng Tsai, Li-Wei Kuo, and Chi-Chun Lee, “Integrating Perceivers Neural-Perceptual Responses Using a Deep Voting Fusion Network for Automatic Vocal Emotion Decoding”  
*2018 IEEE International Conference on Acoustics, Speech and Signal Processing, ICASSP 2018, Calgary, AB, Canada, April 15-20, 2018*
- [9] Yi-Ying Kao, Hsiang-Ping Hsu, Chien-Feng Liao, Yu Tsao, **Hao-Chun Yang**, Jeng-Lin Li, Chi-Chun Lee, Hung-Shin Lee, and Hsin-Min Wang, “Automatic Detection of Speech Under Cold Using Discriminative Autoencoders and Strength Modeling with Multiple Sub-Dictionary Generation”  
*16th International Workshop on Acoustic Signal Enhancement, IWAENC 2018, Tokyo, Japan, September 17-20, 2018*
- [10] Fu-Sheng Tsai, **Hao-Chun Yang**, Wei-Wen Chang, and Chi-Chun Lee, “Automatic Assessment of Individual Culture Attribute of Power Distance Using a Social Context-Enhanced Prosodic Network Representation”  
*Interspeech 2018, 19th Annual Conference of the International Speech Communication Association, Hyderabad, India, 2-6 September 2018*
- [11] **Hao-Chun Yang**, Fu-Sheng Tsai, Yi-Ming Weng, Chip-Jin Ng, and Chi-Chun Lee, “A Triplet-Loss Embedded Deep Regressor Network for Estimating Blood Pressure Changes Using Prosodic Features”  
*2018 IEEE International Conference on Acoustics, Speech and Signal Processing, ICASSP 2018, Calgary, AB, Canada, April 15-20, 2018*