

Chien-Sheng (Jason) WU

Deep Learning · Natural Language Processing · Graduate Researcher

☎ (+852) 67650449 | ✉ jason.wu@connect.ust.hk | 🌐 chien-sheng-jason-wu

Objective: Seeking for an **AI research internship** in the Summer/Fall 2018

Education

Master of Philosophy, Hong Kong University of Science and Technology, HKUST 2017-present

• Human Language Technology Center, Electronic & Computer Engineering

Bachelor, National Taiwan University, NTU 2012-2016

• Electrical Engineering, Overall GPA: 3.88/4.0 Major GPA: 3.93/4.0

Research Experiences

Graduate Researcher, HLTC, Prof. Pascale Fung 2017-present

• Task-oriented dialog systems

- Proposed a state-of-the-art Mem2Seq model to incorporate knowledge bases into end-to-end systems [ACL 2018]

- Proposed dynamic query memory network and recored delexicalization for next utterance classification [ICASSP 2018]

- Won second prize in first track of Dialog System Technology Challenges 2017 [DSTC6]

Undergraduate Research Assistant, HLTC, Prof. Pascale Fung Spring 2016

• Empathetic human-robot interactions

- Collaborated in building virtual android (Zara the Supergirl) as prototype system of empathetic robot [COLING 2016]

- Used transfer learning to achieve 82.5% sentiment F1 score on collected human-machine dialogs [EMNLP 2016]

- Achieved 65.7% accuracy on speech emotion recognition (6 classes) from raw audio samples

Undergraduate Research Assistant, Access IC Lab, Prof. An-Yeu (Andy) Wu 2014-2015

• Signal processing for 5G communication

- Proposed hybrid precoding algorithm to win first prize student paper award of international conference [ICSPCC 2016]

- Trained a codebook using DFT matrix and k-means algorithm to reduce computation complexity by more than 85% with less than 4% performance loss

Publications

1. Andrea Madotto*, **Chien-Sheng Wu***, Pascale Fung, “Mem2Seq: Effectively Incorporating Knowledge Bases into End-to-End Task-Oriented Dialog Systems,” in *ACL*, 2018 [pdf]
2. **Chien-Sheng Wu**, Andrea Madotto, Genta Indra Winata, Pascale Fung, “End-to-End Dynamic Query Memory Network for Entity-Value Independent Task-Oriented Dialog,” in *ICASSP*, 2018 [pdf]
3. **Chien-Sheng Wu***, Andrea Madotto*, Genta Indra Winata, Pascale Fung, “End-to-End Recurrent Entity Network for Entity-Value Independent Goal-Oriented Dialog Learning,” in *DSTC6*, 2017 [pdf]
4. D. Bertero, F. Siddique, **Chien-Sheng Wu**, Y. Wan, R. Chan and P. Fung, “Real-Time Speech Emotion and Sentiment Recognition for Interactive Dialogue Systems,” in *EMNLP*, 2016 [pdf]
5. P. Fung, D. Bertero, Y. Wan, A. Dey, R. Chan, F. Siddique, Y. Yang, **Chien-Sheng Wu**, Ruixi Lin, “Towards Empathetic Human-Robot Interactions,” in *CICling*, 2016. [pdf]
6. P. Fung, A. Dey, F. Siddique, R. Lin, Y. Yang, D. Bertero, W. Yan, **Chien-Sheng Wu**, “Zara: A Virtual Interactive Dialogue System Incorporating Emotion, Sentiment and Personality Recognition,” in *COLING*, 2016. [pdf]
7. **Chien-Sheng Wu**, Chiang-Hen Chen, Cheng-Rung Tsai, and An-Yeu (Andy) Wu, “Joint RF/Baseband Grouping-based Codebook Design for Hybrid Beamforming in mmWave MIMO Systems,” in *IEEE ICSPCC*, 2016 [pdf]

Selected Awards & Work Experiences

- **Irving Ho Scholarship**: Awarded to only 3 undergraduates for outstanding academic performance
- **MSRA Hackathon First Prize**: Won among 132 students from 34 universities in Asia
- **Teaching Assistant**: Building Interactive Intelligent Systems, HKUST
- **Activity Director**: Lead 50+ students to organize 10+ activities for 1000+ NTUEE students

Skills & Languages

- PyTorch, TensorFlow, Keras, Theano, Scikit-learn, Caffe, LibSVM
- Python (familiar), C++ (familiar), Matlab (familiar), JavaScript, Verilog, LaTeX
- Machine Learning, Natural Language Processing, DNN, CNN, RNN, Memory Network, Reinforcement Learning, Seq2Seq, Word Embedding, and Github
- Mandarin (Native), English (Fluent), Cantonese (Beginner)