

YUAN-TING HSIEH

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<https://github.com/YuanTingHsieh>

RESEARCH INTERESTS

Computer Vision, Machine Learning, Deep Learning, Natural Language Processing

EDUCATION

University of Wisconsin, Madison 09/2017 - Present

- Master of Science in Computer Science

National Taiwan University 09/2012 - 01/2017

- Bachelor of Science in Electrical Engineering
- **GPA:** Overall 3.92/4.30 (3.83/4.00), Last 60 units 4.20/4.30 (4.00/4.00)
- **Relevant Courses:** Machine Learning*, Artificial Intelligence*, Data Science*, Data Structure and Programming, Probability and Statistics, Algorithms, Linear Algebra(*: graduate-level courses)

PUBLICATIONS

- [1] **Yuan-Ting Hsieh***, Shih-Yen Tao*, Yao-Hung Hubert Tsai, Yi-Ren Yeh and Yu-Chiang Frank Wang, "Recognizing Heterogeneous Cross-Domain Data via Generalized Joint Distribution Adaptation", in *IEEE ICME* 2016. (**Oral**; *equal contributions) [\[PDF\]](#) [\[Code\]](#) [\[Data\]](#) [\[Talk\]](#) [\[Slides\]](#)
- [2] Huan-Ting Li, Ching-Yao Chou, **Yuan-Ting Hsieh**, Wei-Ching Chu, An-Yeu Andy Wu, "Variation-Aware Reliable Many-Core System Design by Exploiting Inherent Core Redundancy", in *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, vol.PP, no.99, pp.1-14, 2017 [\[PDF\]](#)

RESEARCH EXPERIENCES

Speech Processing Lab 09/2015 - 02/2017

Advisor: Prof. Lin-Shan Lee

National Taiwan University

- Worked on deep domain adaptation for key term extraction using Attention-Based LSTM network
- Implemented an MOOC-lectures structuring method for efficient online learning
- Hands-on practice in building and training an Automatic Speech Recognition system

Multimedia and Machine Learning Lab 03/2015 - 09/2016

Advisor: Dr. Yu-Chiang(Frank) Wang

CITI, Academia Sinica, Taiwan

- **Domain Adaptation for Object Recognition and Cross-Lingual Text Categorization [1]**
Proposed to learn a domain-invariant latent space by matching cross-domain data distributions.

Access IC Lab 09/2014 - 04/2016

Advisor: Prof. An-Yeu(Andy) Wu

National Taiwan University

- Participated National Science Council project of Robust Green Computing System **[2]**
- Designed and implemented a 64-point radix 2^2 FFT hardware using MATLAB and Verilog
- Assisted in Lab's cooperation with Raydium Semiconductor Corp. by implementing 256-point FFT

Speech Processing and Machine Learning Lab 02/2016 - 07/2016

Advisor: Prof. Hung-Yi Lee

National Taiwan University

- Conducted research on movie question-answering (MovieQA)
- Applied bi-directional Gated Recurrent Unit to do Machine Comprehension Test

HONORS & AWARDS

Presidential Award (3 times)

Department of Electrical Engineering

02/2015, 09/2015, 02/2016

National Taiwan University

- Awarded to top 5% of students in the department

College Student Research Creativity Award

National Science Council

07/2016

Taipei, Taiwan

- Highest national award for college students on research activity

College Student Research Scholarship

National Science Council

07/2015 - 02/2016

Taipei, Taiwan

- Awarded to undergraduate students nationwide for excellent research project with monthly stipend
- Researched on dynamic N-modular redundancy(NMR) error resilience design for multi-core system

WORK EXPERIENCES

AMAZE

Data Scientist

06/2017 - 08/2017

Taipei, Taiwan

- Analyzed user's online clothing rental behavior
- Built a product recommendation system by Factorization Machine

SELECTED TERM PROJECTS

Artificial Intelligence

09/2016 - 01/2017

- Participated in Kaggle competition: Santander Product Recommendation.
- Utilizing data cleaning and selection with Gradient Boosting Decision Tree to reach top 14% on the leaderboard (1787 teams)

Machine Learning

09/2015 - 01/2016

- Extracted users' behavior feedbacks and analyzed with Gradient Boosting Decision Tree to predict every individual dropout in MOOC. Top 20% in class. (Data originated from KDD cup 2015)

Data Structure and Programming

09/2014 - 01/2015

- Implemented a Functionally Reduced And-Inverter Graph program to optimize circuits' gate count, which is a critical part in electronic design automation

EXTRACURRICULAR

Activities Director

Electrical Engineering Student Association

08/2014 - 03/2015

National Taiwan University

- Coordinated with members and organized various events for over 200 people, including BBQ, EE's week, EE's night, Music Stage, Roast chicken eating contest, etc.
- Led four other departments to arrange a Christmas party; all 400 tickets were sold

Chief Coordinator

Freshmen Welcome Camp

02/2013 - 09/2014

Miaoli, Taiwan

- Collaborated with Department of Library and Information Science to schedule a 3-day event
- Saved more than NT\$ 50,000 budget for this event

TECHNICAL STRENGTHS

Programming Languages

Languages

Toolkit

Python, C++, MATLAB, R, Verilog, HTML, CSS, Java Script
Mandarin(Fluent), English(Proficient), Spanish(1 year)
Keras, pandas, xgboost, Scikit-learn, LIBSVM, LaTeX