

WEI-NING CHEN

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Education

Stanford University **California, USA**
PhD in Electrical Engineering *2019–Now*

- I am generously supported by **Stanford Graduate Fellowship (SGF)** and am named as **National Semiconductor Corporation Fellow**
- Overall GPA: 4.2/4.0

National Taiwan University **Taipei, Taiwan**
MS in Graduate Institute of Communication Engineering (GICE) *2016–2018*

- Overall GPA: 4.23/4.3
- Thesis: Fundamental Limits of Anonymous Statistical Inference: Privacy-Preserving Crowdsourcing

National Taiwan University **Taipei, Taiwan**
BS in Electric Engineering and Mathematics (double major) *2012–2016*

- Overall GPA: 3.96/4.3

Research Interests

I am broadly interested in information-theoretic and algorithmic aspects of data science. My current interest focuses on nonparametric estimation with communication and privacy constraints and the generalization ability of deep neural networks. My research adopts tools mainly from *information theory*, *theoretical machine learning* and *high dimensional and nonparametric statistics*.

Publications

Journal Article

- [1] [Wei-Ning Chen](#) and I-Hsiang Wang, “Anonymous Heterogeneous Distributed Detection: Optimal Decision Rules, Error Exponents, and the Price of Anonymity”, *IEEE Transaction on Information Theory* (to appear), May 2019

Conference Proceedings

- [1] [Wei-Ning Chen](#) and I-Hsiang Wang, “On the Price of Source Anonymity in Heterogeneous Parametric Point Estimation”, *IEEE International Symposium on Information Theory (ISIT)*, Paris, July 2019
- [2] [Wei-Ning Chen](#), Ho-Chun Chen, and I-Hsiang Wang, “On the Fundamental Limits of Heterogeneous Distributed Detection: Price of Anonymity”, *IEEE International Symposium on Information Theory (ISIT)*, Vail, June 2018
- [3] [Wei-Ning Chen](#) and I-Hsiang Wang, “Partial Data Extraction via Noisy Histogram Queries: Information Theoretic Bounds”, *IEEE International Symposium on Information Theory (ISIT)*, Aachen, June 2017

Honors and Awards

Stanford Graduate Fellowship (2019 – 2022) *Feb. 2019*
Stanford University

- Named as **National Semiconductor Corporation Fellow**

GICE Best Master Thesis Award *Jan. 2019*
Graduate Institute of Communication Engineering, National Taiwan University

The First Prize of CIEE Best Master Thesis Award *Oct. 2018*
Chinese Institute of Electrical Engineering

TIEEE Best Master Thesis Award*Taiwan Institute of Electrical and Electronic Engineering**Oct. 2018***ISIT Student Travel Grant***IEEE Symposium on Information Theory (ISIT)**Jun. 2018***Outstanding Students Conference Travel Grant***Foundation for the Advancement of Outstanding Scholarship**Jun. 2018***Funding for Participation at International Conferences by Domestic Graduate Students***Ministry of Science and Technology (MOST)**Jun. 2017***Silver Medal in Macronix Science Awards (with scholarship about US \$6500)***Macronix Science Foundation**Sep. 2011*

Academic Activities

IEEE International Conference on Communications (ICC)*Reviewer**Oct. 2018***IEEE East Asian School of Information Theory and Communication (EASITC)***Student Volunteer**Aug. 2018***2017 Summer School on Information Theory, Communication Theory and Technologies***Attendee**Aug. 2017***IEEE Taiwan/Hong Kong Joint Workshop on Info. Theory and Communications***Attendee**Aug. 2016, Aug. 2017*

Teaching Experiences

Mathematical Principle of Machine Learning (CommeE5051)*Teaching Assistant***GICE , NTU***Spring 2018*

- Instructed lecture on concentration inequalities

Information Theory (EE5028)*Teaching Assistant***GICE , NTU***Fall 2016, Fall 2017*

- Led recitation sessions

Calculus (MATH1202)*Teaching Assistant***EE , NTU***Spring 2016*

- Led recitation sessions

Technical Strengths

Programming Skills C/C++, Python, Javascript, Matlab, L^AT_EX**GRE Subject Math** 910 (97%)**GRE General** 334/340 (V164, Q170, AW 3.5)**TOEFL iBT** 106/120 (R29, L30, S21, W26)

References

I-Hsiang Wang (Master Advisor)

🌐 website · ✉ available upon request

Associate Professor

Department of Electrical Engineering

National Taiwan University

Shih-Chun Lin

🌐 website · ✉ available upon request

Associate Professor

Department of Electronic and Computer Engineering,

National Taiwan University of Science and Technology