

Yilan Chen

University of California San Diego, La Jolla, CA

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Education

University of California San Diego (UCSD)

M.S. in Computer Science (with Mathematical Courses)

San Diego, USA

Sep. 2020 - 2022 (expected)

Advisors: Prof. Tsui-Wei (Lily) Weng, UCSD and Dr. Lam M. Nguyen, IBM Research

Xi'an Jiaotong University (XJTU)

B.E. in Information Engineering

Xi'an, China

Aug. 2015 - Jun. 2019

National University of Singapore (NUS)

Summer Workshop by School of Computing

Singapore

Jul. 2018 - Aug. 2018

Work Experiences

Shanghai Jiao Tong University (SJTU)

John Hopcroft Center for Computer Science

Shanghai, China

Jul. 2019 - Jun. 2020

Full-time Research Intern Working with Prof. Quanshi Zhang

Publications

On the Equivalence between Neural Network and Support Vector Machine.

- [Yilan Chen](#), Wei Huang, Lam M. Nguyen, Tsui-Wei Weng.
- Thirty-fifth Conference on Neural Information Processing Systems (**NeurIPS 2021**).

Explaining Knowledge Distillation by Quantifying the Knowledge.

- Xu Cheng, Zhefan Rao, [Yilan Chen](#), Quanshi Zhang.
- 2020 IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR 2020**).

Preprint & Under Review

Demystify Optimization and Generalization of Over-parameterized PAC-Bayesian Learning.

- Wei Huang*, Chunrui Liu*, [Yilan Chen](#), Tianyu Liu, Richard Yi Da Xu.
- arXiv, 2022.

Quantifying the Knowledge in a DNN to Explain Knowledge Distillation.

- Quanshi Zhang*, Xu Cheng*, [Yilan Chen](#), Zhefan Rao.
- In submission to IEEE Transactions on Pattern Analysis and Machine Intelligence (**TPAMI**).

Research & Projects

Deep Learning Theory, Robust Deep Learning and Reinforcement Learning

Jan. 2021 - present

Department of Computer Science and Engineering, UCSD

Research Intern [Advisor: Prof. Tsui-Wei (Lily) Weng, UCSD and Dr. Lam M. Nguyen, IBM Research]

Deep Learning Theory

Jun. 2020 - Sep. 2020

School of Electrical and Data Engineering, UTS

Research Intern [Advisor: Prof. Richard Xu, UTS]

Interpretable Machine Learning

Jul. 2019 - Jun. 2020

John Hopcroft Center for Computer Science, SJTU

Research Intern [Advisor: Prof. Quanshi Zhang, SJTU]

Face Aging Prediction with Active Appearance Model

Mar. 2019 - Jun. 2019

Image Processing and Recognition Laboratory, XJTU

Undergraduate Thesis [Advisor: Prof. Xuanqin Mou and Dr. Yijun Liang, XJTU]

Book Recommendation System Based on IBM Cloud

Jul. 2018 - Aug. 2018

School of Computing, NUS

Summer Workshop Group Project [Advisor: Prof. Teo Yong Meng, NUS]

Notes & Other Projects

A Note about Neural Tangent Kernel (NTK) Derivation [pdf]
Some Derivations and Proofs about Linearized Networks [pdf]

Professional Service

ICML, Reviewer	2022
ICLR, Reviewer	2022

Teaching

DSC 291 Trustworthy Machine Learning, Tutor	Fall, 2021
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Technical Skills

Programming: Python, C/C++, MATLAB, JavaScript

Scientific Software and Hardware Development: PyTorch, Linux, LaTeX, FPGA, ARM

Standard English Tests: TOEFL: 104 (R29 L29 S22 W24) GRE: 321 (V155 Q166) + 3.0

Honors & Awards

Outstanding Student Award (Top 10% in the department)	Sep. 2016 and 2018
“Siyuan” Merit Scholarship (Top 20%)	Sep. 2016, 2017, and 2018