

# Yilan Chen

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## Education

### University of California San Diego (UCSD)

*M.S. in Computer Science (with Mathematical Courses)* GPA: 4.0/4.0

San Diego, USA

Sep. 2020 - 2022

Advisors: Prof. [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

## 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**).

### 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**).

### Explaining Knowledge Distillation by Quantifying the Knowledge.

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

## Research & Projects

### Deep Learning Theory and Robust Deep Learning

Jan. 2021 - present

Department of Computer Science and Engineering, UCSD

Research Intern [Advisor: Prof. [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

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A Note about Neural Tangent Kernel (NTK) Derivation [\[pdf\]](#)  
Some Derivations and Proofs about Linearized Networks [\[pdf\]](#)  
Prototype Selection for Nearest Neighbor [\[pdf\]](#)  
Coordinate Descent [\[pdf\]](#)

## Teaching

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DSC 291 Trustworthy Machine Learning, Tutor

*Fall, 2021*

## Honors & Awards

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Outstanding Student Award (Top 10% in the department)

*Sep. 2016 and 2018*

“Siyuan” Merit Scholarship (Top 20%)

*Sep. 2016, 2017, and 2018*

XJTU’s 120<sup>th</sup> Anniversary, Certificate of Honor, chorus performance

*Apr. 2016*

## Technical Skills

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**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