# **Yilan Chen**

### University of California San Diego, La Jolla, CA

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### Education

#### University of California San Diego (UCSD)

San Diego, USA

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

Sep. 2020 - 2022 (expected)

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

Xi'an Jiaotong University (XJTU)

Xi'an, China

B.E. in Information Engineering

Aug. 2015 - Jun. 2019

National University of Singapore (NUS)

Singapore

Summer Workshop by School of Computing

Jul. 2018 - Aug. 2018

# **Experiences**

#### Shanghai Jiao Tong University (SJTU)

Shanghai, China

John Hopcroft Center for Computer Science

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**

#### 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

#### 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]

#### School of Electrical and Data Engineering, UTS

Jun. 2020 - Sep. 2020

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

Research Intern [Advisor, 1101, Richard Ad, C15]

### **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**

ICLR, Reviewer 2022

# **Teaching**

DSC 291 Trustworthy Machine Learning, Tutor

Fall, 2021

### **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) "Siyuan" Merit Scholarship (Top 20%)

Sep. 2016 and 2018 Sep. 2016, 2017, and 2018