Yilan Chen

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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, 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

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) *Sep. 2016 and 2018*
"Siyuan" Merit Scholarship (Top 20%) *Sep. 2016, 2017, and 2018*
XJTU's 120th Anniversary, Certificate of Honor, Chorus Performance *Apr. 2016*

Graduate Courses

Machine learning		**Math**	
Probabilistic Reason & Learning	(A+)	Convex Analysis & Optimization I	(A)
ML: Learning Algorithms	(A+)	Convex Analysis & Optimization II	(A)
ML: Machine Learning Theory	(A)	Linear Algebra and Application	(A)
Search and Optimization	(A)	Mathematical Statistics	(ongoing)
Computer Vision I	(A+)		