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Education

2022 - **Doctor of Philosophy (Computer Science)**
School of Computing,
National University of Singapore, Singapore

2020 - 2021 **Master of Computing (Artificial Intelligence)**
School of Computing,
National University of Singapore, Singapore

2015-2019 **Bachelor of Engineering (Computer Science)**
School of Computer Science and Technology,
Xidian University, Xi'an, Shaanxi, China

Publications

- 2021 [1] *Self-Checking Deep Neural Networks in Deployment*.
Yan Xiao, Ivan Beschastnikh, David S. Rosenblum, [Changsheng Sun](#), Sebastian Elbaum,
Yun Lin, Jin Song Dong. (In proceedings of **ICSE 2021**) [[Paper](#)]
- 2020 [2] *Digraph Inception Convolutional Networks*.
Zekun Tong, Yuxuan Liang, [Changsheng Sun](#), David Rosenblum and Andrew Lim.
(In proceedings of **NeurIPS 2020**) [[Paper](#), [Poster](#)]

Research Experiences

June. – Dec. **Research Assistant**

- 2021 NUS School of Computing
“[Evaluating the Trustworthiness of Deep Learning Systems](#)”
- Advised by [Prof. DONG Jin Song](#)
 - Funded by the Singapore National Research Foundation (NRF) under the National Satellite of Excellence on Trustworthy Software Systems (NSoE-TSS).
 - This project will develop new techniques for determining the trustworthiness of DL systems, with an emphasis on uncovering and accounting for the underlying uncertainties.

Jan. – Jul. **Research Intern**

- 2020 NUS School of Computing / NUS-Singtel Cyber Security R&D Lab
“[Trustworthiness evaluation for deep learning systems](#)”
- Advised by [Prof. David S. Rosenblum](#)

- This project is to design a white-box testing and uses the outputs of the intermediate layers in the deep neural networks to fit density distributions.
- Our work to be appear in [ICSE 2021](#): *Self-Checking Deep Neural Networks in Deployment*.[\[Paper\]](#)

2019

Undergraduate Research Assistant,

Data Engineering and Security Lab, Xidian Univ., Xi'an, China

"Influence Maximization Problem Meets Submodular Function Optimization"

- **Undergraduate thesis** Advised by [Prof. Hui Li](#)
- "Outstanding Undergraduate Thesis" in the School of Computer Science and Technology (Overall Score Ranked **1st/550**)

2018-2019

Undergraduate Research Assistant,

Data Engineering and Security Lab, Xidian Univ., Xi'an, China

"DISCO: Influence Maximization Problem Using Deep Q-Learning and Graph Embedding"

- Advised by [Prof. Hui Li](#)
- A novel framework for IM problem that incorporates graph embedding and deep reinforcement learning techniques
- (Revised Version Submitted to **KDD 2021**) [[arXiv:1906.07378](#)]

Mar.-June.

Research Intern & Algorithm Engineer

2018

JD Intelligent Cities Business Unit & JD Intelligent Cities Research, Beijing, China

"Distributed Reinforcement Learning System Research"

- Advised by [Prof. Yu Zheng](#)
- A study on distributed DQN implementation on spatiotemporal data, based on Ray execution framework.
- [[Link to icity.jd.com](#)]

Skills

Professional Skills

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|---|---------|
| - Python (NumPy, TensorFlow, PyTorch, Matplotlib, etc.) | - Rust |
| - Basic Linux | - LaTeX |
| - C/C++ | - Spark |

Language Skills

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| - Mandarin Chinese | - English |
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Honors & Awards

2017-2018 The **First Prize** Scholarship (10%; Xidian University)

2015-2016 **Special Scholarship**, Symphony Orchestra and Chorus of Xidian University

2015-2016 The **Third Prize** Scholarship (30%; Xidian University)

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2018 **Honorable Mention** MCM/ICM-The Mathematical Contest in Modeling (Top 20% Globally)

2017 **Third Prize** "Challenge Cup" the Science and Innovation Competition, Shaanxi, China

2017 **Finalist** "Beauty of Programming" Competition, Microsoft Research Asia