

Xudong SHEN

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Education

National University of Singapore

Singapore

PH.D. CANDIDATE AT NUS GRADUATE SCHOOL, INTEGRATIVE SCIENCES AND ENGINEERING PROGRAMME

Aug. 2019 - current

- Research interests: fairness in machine learning with application in vision and language, discrimination in economics

Zhejiang University

Hangzhou, China

B.ENG. WITH HONOR IN NAVAL ARCHITECTURE AND OCEAN ENGINEERING

Sep. 2015 - Jun. 2019

- Research experience: computational fluid dynamics, satellite imaging

Waseda University

Tokyo, Japan

MASTER KONG DREAM SCHOLARSHIP PROGRAMME, A LEADERSHIP PROGRAMME

Sep. 2018 - Feb. 2019

Università di Trento

Trento, Italy

ERASMUS+ STUDENT MOBILITY

Feb. - Jun. 2017

Working Papers

- [w1] Xudong Shen, and others, “Discrimination and Its Drivers: Improved Identification from P2P Lending”.
- [w2] Xudong Shen, and others, “Theoretical Guarantees of Fair Representation with Task Anticipation”.

Publication

- [1] Ziwei Xu, Xudong Shen, Yongkang Wong, and Mohan S Kankanhalli. “Unsupervised Motion Representation Learning with Capsule Autoencoders”. In: *Advances in Neural Information Processing Systems* 34 (2021).
- [2] Xudong Shen, Yongkang Wong, and Mohan Kankanhalli. “Fair Representation: Guaranteeing Approximate Multiple Group Fairness for Unknown Tasks”. In: *IEEE Transactions on Pattern Analysis and Machine Intelligence* (2022), pp. 1–1. DOI: 10.1109/TPAMI.2022.3148905.

Experience

Analysis and Optimization of Hydrodynamically Focused Printing for High-resolution Printed Electronics

Toronto, Canada

SUPERVISED BY PROF. GERD GRAU AT ELECTRONICS ADDITIVE MANUFACTURING LAB, YORK UNIVERSITY, SUPPORTED

BY MITACS GLOBALINK

May – Aug. 2018

Cloud Detection in Satellite Remote Sensing using Fully Convolutional Neural Network

Hangzhou, China

SUPERVISED BY PROF. GANG ZHENG AT STATE KEY LABORATORY OF SATELLITE OCEAN ENVIRONMENT DYNAMICS,

SECOND INSTITUTE OF OCEANOGRAPHY

Jul. - Sep. 2017 & Nov. 2018 - Jul. 2019

A Study of Japan’s History, Regulation, and Specific Measures regarding Persistent Organic Pollutants (POPs)

Tokyo, Japan

SUPERVISED BY PROF. SACHIKO HIRAKAWA AT WASEDA UNIVERSITY, UNDER MASTER KONG DREAM SCHOLARSHIP

PROGRAMME

Sep. 2018 - Feb. 2019

Awards & Scholarships

- 2019 **University-wide**, NGS scholarship National University of Singapore
- 2018 **National**, GLOBALINK Research Internship Award Mitacs Canada
- 2018 **National**, Master Kong Dream Scholarship Tingyi Holdings Corp. & Waseda University
- 2017 **University-wide**, ERASMUS+ Student Mobility Grant EU & Università di Trento