

# Xingyi Yang

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## RESEARCH INTEREST

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- **Sample-efficient learning:** Self-supervised learning, weak-supervised learning and transfer learning
- **Machine learning for Healthcare:** Medical image analysis and synthesis, Medical report generation

## EDUCATION

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

Msc. SIP, Electrical and Computer Engineering, Jacobs School of Engineering

La Jolla, USA

Sept. 2019- Present

### Southeast University

B.Eng. Computer Engineering

GPA: 3.71/4, 88.1/100

Nanjing, China

Sept. 2015-Jun. 2019

### University of Ottawa

Visiting Student, Electrical and Computer Engineering

Ottawa, Canada

Jun. 2018-Sept. 2018

## PUBLICATIONS

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- **Xingyi Yang**, Yong Wang, Robert Laganière. *A scale-aware YOLO model for pedestrian detection*, 2020, International Symposium on Visual Computing (**ISVC 2020**) (Oral).
- Rui Zhu, **Xingyi Yang**, Yannick Hold-Geoffroy, Federico Perazzi, Jonathan Eisenmann, Kalyan Sunkavalli, Manmohan Chandraker. *Single View Metrology in the Wild*, 2020, 16th European Conference on Computer Vision (**ECCV 2020**).
- Xiao Xu\*, **Xingyi Yang\***, Yijun Chen\*, Yining Hu, Lizhe Xie and Zheng Wang. *Information Redundancy Minimization for Adversarial*, 2019 in **Macao**, The International Joint Conference on Artificial Intelligence, Artificial Intelligence & Business Security Workshop (**IJCAIW 2019**).

## PREPRINT

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- Zihao Zhou\*, **Xingyi Yang\***, Xinyi He, Ryan Rossi, Handong Zhao, Rose Yu. *Neural Point Process for Forecasting Spatiotemporal Events*, 2020, Under Review.
- **Xingyi Yang\***, Xuehai He\*, Yuxiao Liang, Yue Yang, Shanghang Zhang, Pengtao Xie. *Transfer Learning or Self-supervised Learning? A Tale of Two Pretraining Paradigms* 2020, Preprint arXiv:2007.04234.
- **Xingyi Yang**, Nandiraju Gireesh, Eric Xing, Pengtao Xie. *XRyGAN: Consistency-preserving Generation of X-ray Images from Radiology Reports*, 2020, Preprint arXiv:2006.10552.
- **Xingyi Yang**, Xuehai He, Jinyu Zhao, Yichen Zhang, Shanghang Zhang, Pengtao Xie. *COVID-CT-Dataset: A CT Scan Dataset about COVID-19*, 2020, Preprint arXiv:2003.13865.
- Wenmian Yang, Guangtao Zeng, Bowen Tan, Zeqian Ju, Subrato Chakravorty, Xuehai He, Shu Chen, **Xingyi Yang**, Qingyang Wu, Zhou Yu, Eric Xing, Pengtao Xie. *On the Generation of Medical Dialogues for COVID-19*, 2020, Preprint arXiv:2005.05442.
- Xuehai He\*, **Xingyi Yang\***, Shanghang Zhang\*, Jinyu Zhao, Eric Xing and Pengtao Xie. *Sample-Efficient Deep Learning for COVID-19 Diagnosis Based on CT Scans*, 2020, Preprint medRxiv 2020.04.13.20063941.

## RESEARCH EXPERIENCE

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### AI-for-Healthcare Lab, UC San Diego

Research Assistant

Supervisor: Prof. Pengtao Xie

Oct. 2019-Present

- Comparative study between self-supervised pretraining learning and supervised pretraining.
- Consistency preserving multi-view X-rays generation from radiography reports.
- Sample-efficient diagnosis of COVID-19 based on CT.

**Rose-ML-Lab, UC San Diego**

*Research Intern*

- Neural point process for spatio-temporal event modelling.

**Supervisor: Prof. Rose Yu**

*Jul. 2020-Present*

**Pennsylvania State University**

*Research Intern*

- Retrieval-guided medical report generation.

**Supervisor: Prof. Fenglong Ma**

*Jul. 2020-Present*

**VIVA Lab, University of Ottawa**

*Research Assistant*

- Design scale-aware YOLOv3 model to solve the scale variation for pedestrian detection.
- Implement [MobileNet-YOLOv3](#) and conduct comparative study of CNN based detector: SSD, LSTM-decoder and YOLOv3 on face detection.

**Supervisor: Prof. Robert Laganière**

*Jun. 2018-Sept. 2018*

**Image Processing Lab, Southeast University**

*Research Assistant*

- 3D skull-to-face reconstruction from CT slices using WGAN-GP
- One-stage remote sensing arbitrary-oriented object detection.

**Supervisor: Prof. Yining Hu**

*May. 2018-Jun. 2019*

## PROFRSSIONAL EXPERIENCE

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**Kneron, Inc**

*Deep Learning Intern*

- Post-training 8-bit quantization of neural network.

**La Jolla, USA**

*Oct. 2019- Jan. 2020*

**ArcSoft Technology Co., Ltd.**

*Deep Learning Intern*

- Single-image super-resolution based on semantic segmentation prior.

**Nanjing, China**

*Mar. 2019- May.2019*

**Chongqing Yiwoke Science Technology Development Co., Ltd.**

*Java development intern*

- Back-end development of Tianpeng bidding platform.

**Chongqing, China**

*Jul. 2017- Sept. 2017*

## AWARDS AND CERTIFICATES

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- 12th/2519 place(Defence) on IJACI-19 Alibaba Adversarial Vision Challenge
- 4nd place on Alibaba AI Security Program
- 2018 MCM/ICM Meritorious Winner Prize
- China College Students' Entrepreneurship Competition National Silver Award

## Academic Services

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- Co-organizer, Workflow Chair, of NeurIPS 2020 Workshop: Self-Supervised Learning - Theory and Practice
- Conference Reviewer for CVPR(2021), IJCAI(2021), ICASSP(2020)