### Peizhi Yan

#### Computer Science Masters Candidate (Thesis) I Graduate Assistant

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"The present is theirs; the future, for which I really worked, is mine." — **Nikola Tesla** 

#### Education

Lakehead University (2018-present) GPA: 4.0

Thunder Bay, Ontario, Canada — Master of Science Student in Computer

Algoma University (2016-2018)
 GPA: 4.0

Sault Ste. Marie, Ontario, Canada — Bachelor of Science in Computer Science (Hons., Cum Laude)

University of Jinan (2014-2019), Jinan, Shandong, China — Bachelor of Science in Computer Science

## Teaching Experience

Computer Vision (2019 Fall)

Guest Tutor, Lakehead University graduate-level course, 70 students

Deep Learning (2019 Spring)

Guest Lecturer, Lakehead University graduate-level course, 59 students

Optimization Method (2019 Spring)

Guest Lecturer, Lakehead University graduate-level course, 19 students

Assembly Language (2019 Winter)

Lab Tutor, Lakehead University undergraduate-level course, 38 students

Data Base Management Systems (2018 Fall)

Lab Tutor, Lakehead University undergraduate-level course, 25 students

### Academic Experience

- Reviewer, IEEE Transactions on Circuits and Systems for Video Technology. (2019)
- Graduate assistant, Lakehead University (2018-present)
- Research assistant (on artificial neural networks) at Brain Computer Interface lab, Algoma University, Canada (2017-2018)
- Vice-minister of Software Department of Turing Computer Association, University of Jinan, China (2015-2016)

### **Technical Skills**

- Programming Languages: Python, Java, C++, C, JavaScript, HTML5
- Operating Systems: Unix/Unix-like OS, Windows, iOS and Android development
- Open Source Libraries: OpenCV, Tensorflow, SciPy, Gurobi
- Others: LATEX, MySQL, Firebase

## Domain Knowledge

- Computer Vision and Image Analysis
- Machine Learning, Artificial Neural Networks and Deep Learning
- Big Data Analysis
- Algorithm Design
- Object-Oriented Programming and Object-Oriented Design

#### **Publications**

#### Published:

- Yan, P., Choudhury, S., & Wei, R. (2019, May). A Distributed Graph-Based Dense RFID Readers
   Arrangement Algorithm. In ICC 2019-2019 IEEE International Conference on Communications (ICC) (pp. 1-6).
   IEEE.
- Yan, P., & Feng, Y. (2018). Using Convolution and Deep Learning in Gomoku Game Artificial Intelligence.
   Modern Physics Letters A, 28(03), 1850011.
- Yan, P., & Feng, Y. (2018, December). A Hybrid Gomoku Deep Learning Artificial Intelligence. In Proceedings
  of the 2018 Artificial Intelligence and Cloud Computing Conference (pp. 48-52). ACM.

#### Submitted:

- Yan P., Choudhury S., & Wei R.. A Machine Learning Auxiliary Approach for the Distributed Dense RFID Readers Arrangement Algorithm. IEEE Access on Intelligent and Cognitive Techniques for Internet of Things.
- Yan P., Al-turjman F., Al-Oqily I., & Choudhury S.. An Energy-Efficient Topology Control Algorithm for Optimizing the Lifetime of Wireless Information-Centric IoT Networks. Future Generation Computer Systems.
- Tassone J., Yan P., Simpson M., Mendhe C., Mago V., & Choudhury S.. Utilizing Twitter Data Analysis and Deep Learning to Identify Drug Use. *IEEE Access*.

### Awards and Honors

- (2019) Faculty Research Award (Lakehead University faculty of Computer Science)
- (2019) International Match Fund Award (Lakehead University)
- (2019) Faculty of Science and Environmental Studies Award (Lakehead University)
- (2018) Vector Scholarships in Artificial Intelligence (VSAI) by Vector Institute, \$17,500 (CAD)
- (2018-2019) Graduate Assistantship (Lakehead University)
- (2018) Faculty Research Award (Lakehead University faculty of Computer Science)
- (2018) Lakehead University Entrance Award
- (2018) Lakehead University International Entrance Award
- (2018) Faculty of Science and Environmental Studies Entrance Award (Lakehead University)

## **Projects**

- (Ongoing) Deep Learning Satellite Image Lichen Mapping (in collaboration with NCASI)
- (2019) Web-based Painting Application (link)
- (2019) A Tensorflow implementation of Extreme Learning Autoencoder (open source)
- (2019) Deep Learning 4X Video Super-Resolution (result)
- (2018-2019) Utilizing Twitter Data Analysis and Deep Learning to Identify Drug Use
- (2018) Deep Learning Portrait Mode Photo Generator
- (2018) Distributed Dense RFID Readers Arrangement Algorithm
- (2018) Convolution-Based Gomoku Game Evaluation Algorithm
- (2017-2018) Undergraduate Thesis Project: Using Machine Learning in Gomoku Game

# Other Interests

- Painting
- Reading