



# Peizhi Yan (颜培郅)

## Computer Science Master's Student (Thesis) | 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 Lecturer**, 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:**

- **Peizhi Yan**, Salimur Choudhury, & Ruizhong Wei, (2019). A Distributed Graph-Based Dense RFID Readers Arrangement Algorithm. *IEEE International Conference on Communications (ICC): Mobile and Wireless Networks Symposium*, May 20-24, 2019, Shanghai, China.
- **Peizhi Yan**, & Yi Feng, (2018). Using Convolution and Deep Learning in Gomoku Game Artificial Intelligence. *Modern Physics Letters A* 28, no. 03 (2018): 1850011.
- **Peizhi Yan**, & Yi Feng, (2018). A Hybrid Gomoku Deep Learning Artificial Intelligence. *Artificial Intelligence and Cloud Computing Conference*, Dec 21-23, 2018, Tokyo, Japan. (ISBN: 978-1-4503-6623-6)

### **Submitted:**

- **Peizhi Yan**, Salimur Choudhury, & Ruizhong Wei. A Machine Learning Auxiliary Approach for the Distributed Dense RFID Readers Arrangement Algorithm. *IEEE Access on Intelligent and Cognitive Techniques for Internet of Things*.
- **Peizhi Yan**, Fadi Al-turjman, Ibrhaim Al-Oqily, & Salimur Choudhury. An Energy-Efficient Topology Control Algorithm for Optimizing the Lifetime of Wireless Information-Centric IoT Networks. *Future Generation Computer Systems*.
- Joseph Tassone, **Peizhi Yan**, Mackenzie Simpson, Chentan Mendhe, Vijay Mago, & Salimur Choudhury. 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** (<https://peizhiyan.github.io/www/draw.html>)
- (2019) A Tensorflow implementation of **Extreme Learning Autoencoder** ([open source](#))
- (2019) **Deep Learning 4X Video Super-Resolution**
- (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