### Peizhi Yan

**Computer Science Master Student (Thesis)**

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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 / 4.0 (98%)

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

Supervisor: Dr. Salimur Choudhury

Co-supervisor: Dr. Shan Du

* **Algoma University** (2016-2018) GPA: 4.0 / 4.0 (96%)

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

Thesis supervisor: Dr. Yi Feng, Dr. George Townsend

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

# Teaching Experience

***Lakehead University***

* **Guest Tutor:** *Computer Vision (2019 Fall),* graduate-level course, 70 students
* **Guest Lecturer:** *Deep Learning (2019 Spring)*, graduate-level course, 59 students
* **Guest Lecturer:** *Optimization Method (2019 Spring)*, graduate-level course, 19 students
* **Lab Tutor:** [*Assembly*](http://timetable.lakeheadu.ca/scripts/return.course.description.php?c=COMP&cn=3413) *Language (2019 Winter)*, undergraduate-level course, 38 students
* **Lab Tutor**: [*Data Base Management Systems*](http://timetable.lakeheadu.ca/scripts/return.course.description.php?c=COMP&cn=3413) *(2018 Fall)*, 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 Development Sector of Turing Computer Association, University of Jinan, China (2015-2016)

# Technical Skills

* **Programming Languages:** Python, Java, C++, C, JavaScript, HTML5, CSS3
* **Operating Systems:** Unix/Linux, Windows, iOS and Android development
* **Open Source Libraries:** OpenCV, Tensorflow, Keras, SciPy, Gurobi
* **Others:** LATEX, MySQL, Google 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., Optimizing Mobile Edge Computing Multi-Level Task Offloading via Deep Reinforcement Learning, submitted to *2020 IEEE International Conference on Communications (ICC 2020). IEEE.*
* Liu Y., Li S., Liu M., **Yan P.**, Huang X., & Du S., No-reference stereoscopic image quality assessment by combining global and local features, under revision, submitted to *IEEE Transactions on Circuits and Systems for Video Technology*, 2019.
* Paul A., **Yan P.**, & Yang Y., Online Sequential Learning with Non-Iterative Strategy for Dimension Reduction and Image Classification, submitted to *The Thirty-Fourth AAAI Conference on Artificial Intelligence.*
* **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

***External:***

* (2018-2019) **Vector Scholarships in Artificial Intelligence (VSAI)** by Vector Institute, $17,500 (CAD)

***Lakehead University:***

* (2019) **Faculty Research Award**
* (2019) **International Match Fund Award**
* (2019) **Faculty of Science and Environmental Studies Award**
* (2018-2019) **Graduate Assistantship**
* (2018) **Faculty Research Award**
* (2018) **Lakehead University Entrance Award**
* (2018) **Lakehead University International Entrance Award**
* (2018) **Faculty of Science and Environmental Studies Entrance Award**

# Projects

***Research projects:***

* (Ongoing) **Deep Learning Satellite Image Lichen Mapping** (in collaboration with NCASI Inc., funded by NSERC)
* (2019) **Deep Learning 4X Video Super-Resolution** (<https://www.youtube.com/watch?v=W8TxAPylE0Y>)
* (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**
* (2017-2018) Undergraduate Thesis: **Using Machine Learning in Gomoku Game**

***Other projects:***

* (Ongoing) **BPPV Mobile App** for healthcare training (Android and iOS)
* (2019) Web-based **Painting Application** (<https://peizhiyan.github.io/www/draw.html>)
* (2019) A Tensorflow implementation of **Extreme Learning Autoencoder** (<https://github.com/PeizhiYan/ELA>)
* (2018) **Convolution-Based Gomoku Game Evaluation Algorithm** (<https://peizhiyan.github.io/js_codes/gomoku/index.html>)

# Other Interests

* Painting
* Reading