

MATTHEW PEIZHI YAN

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EDUCATION

- **Lakehead University** (2018 - May 2020) GPA: 4.0 / 4.0 (Average Grade: 98%)
Thunder Bay, Ontario, Canada — **Master in Computer Science**
Supervisor: Dr. Salimur Choudhury
Co-supervisor: Dr. Shan Du
- **Algoma University** (2016-2018) GPA: 4.0 / 4.0 (Average Grade: 96%)
Sault Ste. Marie, Ontario, Canada — **B.Sc. in Computer Science (Honors, Cum Laude)**
Thesis supervisors: Dr. Yi Feng, Dr. George Townsend
- **University of Jinan** (2014-2019), Jinan, Shandong, China — **B.Eng. in Computer Science**

TEACHING EXPERIENCE

Lakehead University

- **Tutor:** *Deep Learning (2020 Winter)*, graduate-level course, 83 students
- **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
- **Tutor:** *Assembly Language (2019 Winter)*, undergraduate-level course, 38 students
- **Tutor:** *Data Base Management Systems (2018 Fall)*, undergraduate-level course, 25 students

ACADEMIC EXPERIENCE

- **Reviewer**, IEEE Transactions on Circuits and Systems for Video Technology
- **Reviewer**, Canadian Journal of Electrical and Computer Engineering
- **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)

PUBLICATIONS

Journal

1. **Yan P.**, Choudhury S., & Wei R. "A Machine Learning Auxiliary Approach for the Distributed Dense RFID Readers Arrangement Algorithm". *Intelligent and Cognitive Techniques for Internet of Things, IEEE Access Journal*, 2020. (SCI Journal, Impact Factor: 4.098)
2. **Yan, P.**, & Feng, Y. "Using Convolution and Deep Learning in Gomoku Game Artificial Intelligence". *Modern Physics Letters A*, 28(03), 2018. (SCI Journal, Impact Factor: 1.367)

Conference

3. **Yan, P.**, & Choudhury, S., "Optimizing Mobile Edge Computing Multi-Level Task Offloading via Deep Reinforcement Learning". In *ICC 2020-2020 IEEE International Conference on Communications (ICC)*. IEEE. 2020.
4. Emu M., **Yan P.**, Choudhury S., (2020). "Latency Aware VNF Deployment at Edge Devices for IoT Services: An Artificial Neural Network Based Approach". In *ICC 2020-2020 IEEE International Conference on Communications (ICC) on Convergent IoT*. IEEE.
5. **Yan, P.**, Choudhury, S., & Wei, R. "A Distributed Graph-Based Dense RFID Readers Arrangement Algorithm". In *ICC 2019-2019 IEEE International Conference on Communications (ICC)* (pp. 1-6). IEEE. May, 2019.
6. **Yan, P.**, & Feng, Y. "A Hybrid Gomoku Deep Learning Artificial Intelligence". In *Proceedings of the 2018 Artificial Intelligence and Cloud Computing Conference* (pp. 48-52). ACM. December, 2018.

Submitted

7. 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*.
8. Paul A., **Yan P.**, & Yang Y., "Online Sequential Learning with Non-Iterative Strategy for Dimension Reduction and Image Classification", submitted to *IEEE Transactions on Systems, Man and Cybernetics*.
9. **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*.
10. 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
Lakehead University
- (2019) **International Match Fund Award**
- (2019) **Faculty of Science and Environmental Studies Award**
- (2018, 2019) **Graduate Assistantship**
- (2018, 2019) **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=W8TxAPyIE0Y>)
- (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) Open source 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)

SKILLS

- **Programming languages:** Python, Java, C++, Swift, C, JavaScript, HTML5, CSS3
- **Open source libraries:** OpenCV, Tensorflow, Keras, SciPy, Gurobi, Paper.js
- **Others:** Latex, Xcode IDE, Linux OS, Matlab, Adobe Photoshop, Adobe Illustrator