



Haoye Lu

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# Haoye Lu

## Education

**Sep. 2021 – Present, University of Waterloo and Vector Institute**

Ph.D. in Computer Science (supervised by Yaoliang Yu, CGPA 98.5/100)

**Jan. 2017 – April 2019, University of Ottawa**

Master of Computer Science (supervised by Amiya Nayak, CGPA 10/10, Outstanding Thesis Nomination)

Thesis: [Function optimization-based schemes for designing continuous action learning automata](#)

**Sep. 2013 – Dec. 2016, University of Ottawa**

BSc Joint Honors in Computer Science and in Mathematics (CGPA 9.98/10, University Silver Medal)

## Experience

**May 2022 – Aug. 2022, Research Internship, National Research Council Canada**

- Focus on representation learning on graphs.

**May 2019 – Aug. 2021, Research Associate, University of Ottawa**

- Focus on research in deep learning.
- Develop crack detection-related algorithms using machine learning techniques.

**Sep. 2017 – April 2021, Teaching Assistant, University of Ottawa**

- TA for a Java programming course (Winter 2019)
- TA for a Python programming course (Fall 2017 and Fall 2018)
- Head TA for an Operating System course (Winter 2018)

**May 2015 – Dec. 2016, Research Assistant, University of Ottawa, EECS**

- Doing research related to networks and community detections

**May 2014 – Aug. 2014, Research Assistant, University of Ottawa, Dept. of Math. & Stat.**

- Programming on Maplesoft computing system (mathematical computing software)

## Awards

- 2022, Canada Graduate Scholarships – Doctoral, NSERC
  - Upgraded from Postgraduate Scholarship - Doctoral in Oct, 2022.
- 2022, Ontario Graduate Scholarship (OGS), declined.
- 2021, GO-Bell Scholarships, University of Waterloo
- 2021, David R. Cheriton Graduate Scholarship, University of Waterloo
- 2019, Outstanding Master's Thesis Nomination, University of Ottawa
  - The only thesis nominated by the Faculty of Engineering.
- 2017–2018, Full International Admission Scholarship, University of Ottawa
- 2017, University Silver Medal, University of Ottawa
  - For the 2nd-highest academic standing in an honors bachelor program in the Faculty of Science
- 2016, Yvon Grandchamp Scholarship, University of Ottawa, Dept. of Math. & Stat.
- 2014–2016, Dean's Honor List, University of Ottawa
- 2013–2016, Nortel Networks Admission Scholarship, University of Ottawa
- 2015, Wong-Ng Scholarship, University of Ottawa
- 2015, Merit Scholarship, University of Ottawa
- 2014, Viktor Linis Award in Math., University of Ottawa, Dept. of Math. & Stat.

## Services

1. Top 10% reviewer of ICML 2022
2. Reviewer of Neurips 2022, AISTATS 2022, IEEE GLOBECOM 2017
3. Reviewer of IEEE Transactions on Cybernetics

## Papers

### Conference Papers

- [c1] **Haoye Lu**, Daniel Herman, and Yaoliang Yu, “[Multi-Objective Reinforcement Learning: Convexity, Stationarity and Pareto Optimality](#)”, in *ICLR*, May 2023.
- [c2] **Haoye Lu**, Yongyi Mao, and Amiya Nayak, “[On the dynamics of training attention models](#)”, in *ICLR*, May 2021.
- [c3] Haolong Zhang, Amit Nayak, and **Haoye Lu**, “[Periodic time series data classification by deep neural network](#)”, in *ICT*, April 2019.
- [c4] **Haoye Lu**, Anand Srinivasan, and Amiya Nayak, “[Period detection and future trend prediction using machine learning techniques](#)”, in *IEEE SmartData*, Aug. 2018.
- [c5] Soom Behera, **Haoye Lu**, and Amiya Nayak, “[Performance evaluation of community detection algorithms based on relationship strength measurement](#)”, in *ICUFN*, July 2018.
- [c6] Modhawi Alotaibi, **Haoye Lu**, and Amiya Nayak, “[A hierarchical approach to handle inter-domain mobility in SDN-based networks using mobile IP](#)”, in *ICT*, June 2018.
- [c7] **Haoye Lu**, Michel Barbeau, and Amiya Nayak, “[Economic no-key semi-quantum direct communication protocol](#)”, in *IEEE Globecom Workshops*, Dec. 2017.
- [c8] **Haoye Lu**, Anand Srinivasan, and Amiya Nayak, “[Learning automata based method for solving demand and supply problem with periodic behaviors](#)”, in *IEEE BigData*, Dec. 2017.

### Journal Papers

- [j1] **Haoye Lu**, Haolong Zhang, and Amit Nayak, “[A deep neural network for audio classification with a classifier attention mechanism](#)”, *preprint*.
- [j2] Xiaoxu Liu, **Haoye Lu**, and Amiya Nayak, “[A Spam Transformer Model for SMS Spam Detection](#)”, in *IEEE Access*, 2021.
- [j3] Haolong Zhang, **Haoye Lu**, and Amiya Nayak, “[Periodic time series data analysis by deep learning methodology](#)”, in *IEEE Access*, 2020.
- [j4] **Haoye Lu**, Michel Barbeau, and Amiya Nayak, “[Keyless semi-quantum point-to-point communication protocol with low resource requirements](#)”, in *Scientific Reports*, 2019.
- [j5] **Haoye Lu** and Amiya Nayak, “[A scheme to design community detection algorithms in various networks](#)”, in *Future Internet*, 2019.