# Dongyan Lin

Computational Neuroscience  $\cdot$  Machine Learning  $\cdot$  Neural Networks

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**EDUCATION** 

Sep. 2019 – present

Ph.D. in Computational Neuroscience

McGill University, Canada

I am a PhD candidate in computational neuroscience at the Integrated Program of Neuroscience at McGill University and Mila. My research lies at the intersection of neuroscience and artificial intelligence. Specifically, I am interested in designing artificial agents whose behaviours and neural representations resemble those observed in animals, as well as developing novel machine learning tools to analyze neural data. cGPA: 4.00/4.00

Sep. 2015 - Jun. 2019

Hon. B.Sc. in Physiology (high distinction)

University of Toronto, Canada

Minored in Mathematics and Psychology.

cGPA: 3.87/4.00

### RESEARCH EXPERIENCE

Sep. 2019 – present

Ph.D. Student

MILA; McGILL UNIVERSITY

Advisor: Dr. Blake Richards

Project: An artificial intelligence framework for the neural basis of time-dependent working

memory

Sep. 2018 - Apr. 2019

Lab Manager / Research Assistant

DEPARTMENT OF PSYCHOLOGY, UNIVERSITY OF TORONTO

Advisor: Dr. Katherine Duncan

Project: Measurement of familiarity to objects with the naming experiment

Jun. 2018 - Aug. 2018

Bioinformatics Intern

RIKEN, JAPAN

Advisor: Dr. Michiel de Hoon

Project: Elucidating the functional roles of anti-sense transcripts in human THP-1 leukemia cells

with computational methods

May. 2017 – Aug. 2017

Research Student

SICKKIDS HOSPITAL; UNIVERSITY OF TORONTO

Advisor: Dr. Steven Prescott

Project: In vitro chloride regulation of mouse hippocampal gamma oscillations

## Presentations

- I. Dongyan Lin, FANTOM Consortium, Michiel de Hoon. Elucidating the functional roles of anti-sense transcripts in human THP-1 leukemia cells with computational methods. Summer Undergraduate Research Symposium, Department of Cell & System Biology, University of Toronto. September 2018. Received the Best Poster Award.
- 2. **Dongyan Lin**, Stephanie Ratté, Steven Prescott. The chloride regulation of mouse hippocampal gamma oscillation in vitro. University Research Opportunity Program Awardee Seminar, University of Toronto. August 2017.

## Honours

2020	IVADO MSc Excellence Scholarship (\$40,000)	IVADO
2019	Recruitment Award (\$5,000)	McGill University
2018	Innis College Exceptional Achievement Award (\$735)	University of Toronto
2019, 2018, 2017, 2016	Dean's List	University of Toronto
2017	Unversity Research Opportunity Program Award (\$2,000)	University of Toronto

Dongyan Lin Curriculum Vitæ

2017	Innis College Later Life Learning OSOTF Award (\$1,336)	University of Toronto
2016	Innis College Later Life Learning OSOTF Award (\$1,289)	University of Toronto
2016	Beatty Scholarship (\$1,500)	University of Toronto
2015	Entrance Scholarship (\$6,000)	University of Toronto
2015	Canada Governor General's Academic Bronze Medal	Winnipeg, Manitoba

### **SKILLS**

Experimental neuroscience: extracellular recording, surgery, slice preparation

**Programming**: Python, UNIX, MATLAB, ŁTŁX, HTML, PyTorch **Natural Languages**: Mandarin (native), English (fluent), French (basic)

### TEACHING EXPERIENCE

Nov. 2019 – Mar. 2020 Volunteer Classroom Instructor

BrainReach, Montréal, Canada

Delivered introductory neuroscience classes to Grade 9 students of a secondary school in Montréal.

Sep. 2018 – Apr. 2019 Teaching Assistant: MAT135 (Calculus I), MAT136 (Calculus II) UNIVERSITY OF TORONTO

Prepared and delivered tutorials; held office hours; graded assignment, tests, and exams; delivered a guest

lecture.

Sep. 2016 – Apr. 2018 Classroom Instructor

Easy Group Inc., Toronto, Canada

Prepared and delivered tutorials and exam review sessions on calculus and multivariable calculus.

#### VOLUNTEER & COMMUNITY SERVICE

Nov. 2020	Montréal AI & Neuroscience (MAIN) Conference	Organizer
May 2020	UNIQUE Student Symposium	Organizer
May 2018 – Apr. 2019	First-year Learning Community, University of Toronto	PEER MENTOR
May 2018 – Apr. 2019	iConnect Mentorship Program, University of Toronto	Event Leader
May 2017 – Apr. 2018	iConnect Mentorship Program, University of Toronto	Mentor

## GRADUATE COURSEWORK

Winter 2020	COMP767: Reinforcement Learning	Α
Winter 2020	NEUR631: Principles of Neuroscience II	А
Fall 2019	NEUR630: Principles of Neuroscience I	Α