DONGYAN **LIN**

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I am a MSc candidate in computational neuroscience at McGill University. My research focuses on applying machine learning to neuroscience and investigating the roles of memory model in learning tasks. In addition to research, I have a strong passion for teaching and years of experience teaching mathematics and neurosciences.

EDUCATION

SEPTEMBER 2019 – PRESENT
M.Sc., McGill University
Program: Integrated Program in Neuroscience (IPN)
cGPA: 4.00/4.00

SEPTEMBER 2015 – JUNE 2019
Hon. B.Sc. (with high distinction), University of Toronto (Innis College)
Programs: Physiology Major, Psychology Minor, Mathematics Minor
cGPA: 3.87/4.00

RESEARCH EXPERIENCE

SEPTEMBER 2019 – PRESENT
Research M. Sc. Student, Mila - Quebec Artificial Intelligence Institute
Advisor: Dr. Blake A. Richards
Project: Reinforcement learning model of mouse hippocampal activities during Trial-Unique, Delayed Nonmatching-to-Location (TUNL) Task

- Trained actor-critic network with reinforcement learning algorithms on simulated TUNL task
- Analyzed *in vivo* calcium imaging data of mouse hippocampal CA1 activities with MATLAB

SEPTEMBER 2018 – APRIL 2019
Lab Manager/Research Assistant, University of Toronto, Department of Psychology
Advisor: Dr. Katherine Duncan
Project: Measuring familiarity of native English speakers to different objects with object-naming experiment

- Recruited participants and collected results with Amazon Mechanical Turk

JUNE 2018 – AUGUST 2018
Bioinformatics Intern, RIKEN, Yokohama, Japan
Advisor: Dr. Michiel de Hoon
Project: Elucidating the functional roles of anti-sense transcripts in human THP-1 leukemia cells with computational methods

- Analyzed genomic data with Python and Python packages such as Bedtools
- Presented results at the *Summer Undergraduate Research Symposium* held by the *Department of Cell & System Biology* at University of Toronto and received **the Best Poster Award**

MAY 2017 – AUGUST 2017
Research Student, Hospital for Sick Children, Toronto, Canada
Advisor: Dr. Steve Prescott
Project: Investigating the chloride regulation of mouse hippocampal gamma oscillation in vitro and its potential application in pediatric medicine

- Prepared brain slices with a vibratome, and collected extracellular recordings of hippocampal neural activities using Spike2 software
- Analyzed data with MATLAB
- Presented results at *University Research Opportunity Program* (UROP) awardee seminar

TEACHING EXPERIENCE

NOVEMBER 2019 – PRESENT
Volunteer Classroom Instructor, BrainReach, Montreal, Canada

- Delivered 6 introductory neuroscience classes to Grade 9 students of a secondary school in Montreal.

SEPTEMBER 2018 – APRIL 2019
Undergraduate Teaching Assistant, University of Toronto, Department of Mathematics

- Courses: MAT135 (Calculus I), MAT136 (Calculus II)
- Prepared and delivered tutorials of 20-30 students; held office hours; graded assignment, tests, and exams; gave a guest lecture to a class of 285 students.

SEPTEMBER 2016 – APRIL 2018
Classroom Instructor, Easy Group Inc., Toronto, Canada

- Delivered weekly tutorial sessions to classes of 20-30 students, and exam review sessions to classes of 100-200 students on Calculus and Multivariable Calculus.

AWARDS

Year	Honours / Awards	Total Amount
2020	IVADO Excellence Scholarship MSc	$ 40000
2019	Recruitment Award, McGill University	$ 5000
2018	Innis College Exceptional Achievement Award, University of Toronto	$ 735
2018	Dean's List, University of Toronto	-
2017	University Research Opportunity Program (UROP) Award, University of Toronto	$ 2000
2017	Innis College Later Life Learning OSOTF Award, University of Toronto	$ 1336
2017	Dean's List, University of Toronto	-
2016	Innis College Later Life Learning OSOTF Award, University of Toronto	$ 1289
2016	Beatty Scholarship, University of Toronto	$ 1500
2016	Dean's List, University of Toronto	-
2015	University of Toronto Scholar	$ 6000
2015	Canada Governor General's Academic Bronze Medal	-

SKILLS

Experimental neuroscience: extracellular recording, animal handling, preparing brain slices
Computer programming: Python, shell scripting, Pytorch, MATLAB, LaTeX, HTML
Languages: Mandarin (native), English (fluent), French (limited)

VOLUNTEER & COMMUNITY SERVICE

NOV 2019 – PRESENT
Organizer, UNIQUE Student Symposium, Montreal, Canada

- Plan and administer the logistics of UNIQUE (Unifying Neuroscience and Artificial Intelligence – Quebec) Student Symposium, which will be held in May 2020.

MAY 2018 – APRIL 2019
Peer Mentor, First-year Learning Community, University of Toronto

- Held bi-weekly seminars to help first-year life science students develop a sense of community, learn about university resources and become academically prepared for future studies

MAY 2018 – APRIL 2019
Event Leader, iConnect Mentorship Program, University of Toronto

- Planned and organized two on-campus social events for members of the iConnect mentorship program, each with more than 50 participants
- Held monthly small group meetings to receive feedback from and provide future directions to the mentors

MAY 2017 – APRIL 2018
Mentor, iConnect Mentorship Program, University of Toronto

- Supported newly-arrived international students during their cultural transitions through online communications and city outings

GRADUATE COURSEWORK

Term	Course	Grade
Winter 2020	COMP767: Reinforcement Learning	A
Winter 2020	NEUR631: Principles of Neuroscience II	A
Fall 2019	NEUR630: Principles of Neuroscience I	A