**Junjiang Li**

junjiangli@cs.toronto.edu ◇ (647) 830-8726
linkedin.com/in/junjiangli ◇ tsubakinoniwa.github.io

## Education

**MSc in Applied Computing** September 2021 – December 2022 (Expected)
University of Toronto, Department of Computer Science
*Registered Courses*

- CSC2206 System Modelling and Analysis
- CSC2221 Theory of Distributed Computing
- CSC2233 Topics in Storage Systems
- CSC2532 Statistical Learning Theory
- CSC2541 Topics in Machine Learning

**Bachelor of Science and BSc in Engineering** August 2017 – May 2021
Miami University, Oxford, OH 45056, United States GPA: 3.98
Majors: *Computer Science*, *Mathematics*, and *Physics*

## Experiences

**Machine Learning Research Lab**, Department of Computer Science, Miami University May 2020 – May 2021
Student Researcher

- Constructed a simulation orchestration software using Python to run large-scale epidemiological simulations on multiple servers in parallel.
- Implemented vaccination logic to open-source agent-based COVID-19 models.
- Analyzed and visualized large amounts of simulation data using custom written scripts.
- Directed a team of 5 to predict disease progression based on image features extracted from HIV simulations.

**Bose-Einstein Condensates (BEC) Research Lab**, Dept. of Physics, Miami University October 2017 – May 2019
Student Researcher

- Built numerical simulations of the fast adiabatic transport of BECs.
- Built numerical simulations to help determine configurations of critical apparatus configurations (including transfer coil positions and current profile) using C++.

## Additional Courses

**Machine Learning Techniques** September 2021 – Present
Hsuan-Tien Lin (National Taiwan University), Coursera
*Select Topics*: SVM, Bagging and Boosting, Decision Trees, Neural Networks, $k$-Means, Matrix Factorization

**Machine Learning Foundations (Parts 1 and 2)** August 2021 – September 2021
Hsuan-Tien Lin (National Taiwan University), Coursera Final Grade: 95%
*Select Topics*: PLA, Linear and Logisitic Regression, VC Theory, Feature Transform, Regularization, Validation

## Publications

- Li J. and Giabbanelli P.J., "Returning to a Normal Life via COVID-19 Vaccines in the United States: A Large-scale Agent-Based Simulation Study", *JMIR Med Inform*, 2021, doi: 10.2196/27419
- Li J. and Giabbanelli P.J., "Identifying Synergistic Interventions to Address COVID-19 Using a Large Scale Agent-Based Model", *ICCS 2021*, 2021, pp. 655-662, doi: 10.1007/978-3-030-77967-2_54.

## Awards and Grants

- Outstanding Poster Award at the OSAPS physics conference Fall 2019
- Pi Mu Epsilon Prize for placing 1st in a school-wide mathematics contest Dept. of Mathematics, Spring 2019
- Microsoft AI for Health Grant for the COVID-19 projects Fall 2020
- Mary and Clifford Harvey Scholarship Dept. of Mathematics, Fall 2020
- R. L. Edwards Scholarship Dept. of Physics, Fall 2020

- Osmond Barton Prize — Dept. of Mathematics, Spring 2019
- George and Carolyn Arfken Scholarship — Dept. of Physics, Spring 2019
- Outstanding Undergraduate Researcher Award — Dept. of Physics, Spring 2019
- William Shoupp Memorial Scholarship — Dept. of Physics, Spring 2018

## Work Experiences

**Department of Computer Science**, Miami University — Summer 2020
Teaching Assistant
- Set office hours to answer student questions in Data Structures and Mobile Application Programming
- Wrote scripts to automatically upload grade reports generated by existing autograders

**Rinella Learning Center**, Miami University — September 2018 – September 2019
Supplemental Instructor and Tutor
- Held review sessions in Calculus for more than 15 students.
- Encouraged group discussions and collaborations.
- Considered the needs of students at different levels and designed practice problems beneficial to all students.