Junjiang Li

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Education

University of Toronto, Toronto ON, Canada — Fall 2021 – Present
Master of Science in Applied Computing

Miami University, Oxford OH, United States — Fall 2017 – Spring 2021
Bachelor of Science in Computer Science — GPA: 3.98
Bachelor of Science in Mathematics
Bachelor of Science in Physics

Research Experiences

Machine Learning Research Lab — Summer 2020 – Summer 2021
Department of Computer Science, Miami University

- Constructed a simulation orchestration software using Python to run large-scale simulations on multiple Linux servers in parallel.
- Implemented additional features to existing open-source COVID-19 Python simulations.
- Built scripts to analyze and visualize large amounts of simulation data.
- Results published at ICCS 2021 (doi: 10.1007/978-3-030-77967-2_54) and JMIR Medical Informatics (doi: 10.2196/27419).

Quantum Information Research Lab — Fall 2019 – Spring 2020
Department of Physics, Miami University

- Studied common models and formalisms in Quantum Optics.
- Gained further experiences in understanding mathematics-heavy research articles.

Bose-Einstein Condensation (BEC) Research Lab — Fall 2017 – Spring 2019
Department of Physics, Miami University

- Built numerical simulations of the fast adiabatic transport of BECs using Mathematica.
- Built numerical simulations to determine configurations of experimental apparatus (e.g. placement of transfer coils and current profiles) using Python and C++.
- Presented poster titled "Numerical Simulations of the Fast-Adiabatic Transport of Bose Einstein Condensates" at regional (OSAPS) and national (APS DAMOP) conferences, which won the "outstanding poster award".

Honors, Awards & Grants

- 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
- Undergraduate Summer Scholar (USS) Research Grant — Dept. of Physics, Summer 2020
  ※*cancelled due to COVID-19*
- Pi Mu Epsilon Prize — Dept. of Mathematics, Spring 2019
- 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

- Undergraduate Research Award — Miami University, Spring 2019
- Top 10 Award — College of Engineering and Computing, Spring 2019
- William Shoupp Memorial Scholarship — Dept. of Physics, Spring 2018
- Miami University President's List — 7 Times
- Miami University Dean's List — 1 Time

Work Experiences

Teaching Assistant Summer 2020

Department of Computer Science, Miami University

- Set office hours to answer student questions.
- Created and applied automated tools to help grade assignments.

Supplemental Instructor and Tutor Fall 2018 – Fall 2019

Rinella Learning Center, Miami University

- Helped students deepen their understanding of basic subjects such as Calculus, College Physics, Basic Economics, etc.
- Further improved my communication skills, especially at encouraging group discussions and collaborations.
- Considered the needs of students at different levels, and designed practice problems beneficial to all students.