

# Isidor Kaplan

## About Me

Second-year computer engineering student at the University of Toronto with an interest in machine learning, programming, and software-design. On Dean's List for all academic terms to date. Recipient of University of Toronto In-Course Scholarship and FASE First Year Summer Fellowship. Worked for the iQua research group and co-authored three (3) research papers on Deep Reinforcement Learning.

## Education

**Bachelor of Applied Science**, Computer Engineering | University of Toronto

- **2019 - Present** Currently completing 2nd Year
- **4.0/4.0 cGPA** Cumulative Grade Point Average (2 terms)
- **Deans List Scholar** for all academic terms to date

## Experience

**Academic Researcher - Machine Learning** | iQua Research Group

- Helped design and apply Deep Reinforcement Learning algorithms under the supervision of Prof. Baochun Li
- Dealt with a range of applications including congestion control, edge computing and network-adaptive coding.
- Designed large code-bases in Python with PyTorch to train and evaluate machine learning models

**Team Leader** | Engineering Strategies and Practices II

- First student in history of the course (10+ years) to take initiative to locate an industry project and bring it to the course.
- Led an engineering team to come up with and implement a Machine-Learning based solution to autonomously identifying faulty power-line insulators from images.
- <https://tinyurl.com/metscoinsulators>

## Relevant Courses

- **Engineering Strategies and Practices I and II:** Engineering design process. Worked with a client in industry to solve a real-world problem.
- **Computer Fundamentals:** Introduction to C programming
- **Digital Systems:** Digital Circuit Design. Lab focused. FPGA's and Verilog.
- **Programming Fundamentals:** C++, Data Structures, Complexity
- **Calculus I, II, III:** Single and multivariable calculus, vector calculus.
- **Linear Algebra:** Fundamentals of Linear Algebra
- **Engineering Mathematics:** Differential Equations, Complex Analysis

## Contact

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## Technical Skills

- C, C++, Python
- Reinforcement Learning
- Machine Learning
- PyTorch and Tensor-flow
- Verilog
- Raspberry Pi & Arduino
- MATLAB
- Microsoft Office

## Interpersonal Skills

- Leadership
- Initiative
- Project Management
- Communication
- Teamwork

## Awards

**Deans List** (2019-Present)

- All academic terms to date

**Galaxy Explorer AI** (Fall 2020)

- Top 5, course competition

**First Year Fellowship** (2020)

- Awarded prestigious fellowship to sponsor first year research during the summer.

**In-Course Scholarship** (2020)

- Was awarded a prestigious in-course scholarship for academic performance during 2019-20 school year.

**Reversi AI** (Winter 2020)

- Top 5, course competition

**Board Proficiency** (2019)

- Top marks in the school for grade 12

**Waterloo Competitions**

Certificate of Distinction

- Canadian Computing Competition (2018,19)
- Euclid Math (2019)