Isidor Kaplan

Contact

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About Me

I am a second-year computer engineering student at the University of Toronto with a particular interest in machine learning, programming, and software-design. I am on the dean's list for all academic terms to date and a recipient of the University of Toronto In-Course Scholarship and FASE First Year Summer Fellowship. In summer 2020, I 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

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)