Isidor Kaplan

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EDUCATION

B.A.Sc Computer Engineering | University Of Toronto	Toronto, ON
4.0/4.0 Cumulative GPA | 96.1% Cumulative Average | ECE Top Student Award (Twice)	*Sept. 2019 – May 2024*

AWARDS

Edward S. Rogers Sr. Dept of Electrical and Computer Engineering *Top Student Award*	2020-21 and 2021-22
Charles Edwin Trim *Scholarship*	Sept 2021 – April 2022
BFMI Sesquicentennial Trust *Scholarship*	Sept 2020 – April 2021
First-Year *Fellowship*	May 2020 – August 2020
In-Course *Scholarship*	Sept 2019 – April 2020

EXPERIENCE

Software Engineering Intern — May 2023 – August 2023
Hudson River Trading LLC — *New York, NY*
- Starting May 2023: Write highly optimized low-latency trading algorithms

Computer Architect Intern — May 2022 – May 2023
Intel Corporation — *Toronto, ON*
- Design next-generation routing architecture for Intel high-performance FPGAs
- Simulate and evaluate hypothetical FPGA architectures on large design suites
- Analyze large quantities of empirical data for meaningful trends and insights
- Develop internal simulation frameworks in C++ and data-analysis tools in Python

Teaching Assistant — Sept 2021 – April 2023
University Of Toronto — *Toronto, ON*
- *Computer Organization*: ARM v7 Assembly, CPU Design in Verilog, Bare-Metal Programming
- *Software Communication & Design (In Jan 2023)*: Graph Algorithms, Competitive Design Project, C++ STL
- *Programming Fundamentals*: C++, Object-Oriented-Programming, Data Structures, Complexity Analysis

Software Developer Intern — May 2021 – August 2021
Rocscience Inc — *Remote*
- Redesigned legacy commercial C++ stability analysis software allowing for first major update in years
- Applied unsupervised machine learning for automating feature extraction from geological images

Machine Learning Academic Researcher — May 2021 – August 2021
University Of Toronto – iQua Research Group — *Remote*
- Design and apply deep reinforcement learning algorithms under the supervision of Prof. Baochun Li to congestion control, edge computing and network-adaptive coding.

TECHNICAL SKILLS

Languages: C/C++, Python, Java, Rust, MATLAB, System-Verilog, ARM v7 Assembly
Focus Areas: High Frequency Trading, Computer Architecture, Software Engineering, FPGA, Machine Learning
Math Courses: Multivariable Calculus, Probability, Linear Algebra, Control Theory, Complex Analysis & ODEs
Hardware Courses: Computer Architecture, Comp Hardware, Comp Organization, Digital Electronics, Digital Systems
Software Courses: Algorithms & Data Structures, Operating Systems, Machine Learning, Software Comm & Design

PUBLICATIONS

Ivory: Learning Network Adaptive Streaming Codes — IEEE IWQoS 2022
Salma Emara, Fei Wang, Isidor Kaplan, Baochun Li

Hybrid Algorithm Based on Machine Learning and Deep Learning to Identify Ceramic Insulators and Detect Physical Damages — IEEE CEIDP 2021
Youssef El Haj, Ruth Milman, Isidor Kaplan, Ali Ashasi