

JOEY YU

Computer Science Undergraduate

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kobortor.com github.com/kobortor

EXPERIENCE

Software Engineering Intern

Rippling

May. 2020 – Aug. 2020 San Francisco, CA

- Developed a specialized JSON serializer for MongoDB objects; integrated complex permissioning system while achieving 9x speedup on real world data
- Created healthcare insurance reporting utilities for clients using Python, MongoDB, and React

Research Intern

Uber Advanced Technology Group (ATG)

May. 2019 – Aug. 2019 Toronto, ON

- Optimized localization map to create a globally consistent map for autonomous vehicles.
- Developed custom non-linear least squares solver using Google Ceres Solver and C++
- Parallelized processing of large amounts of vehicle pose data using Apache Spark in Python
- Created visualizations of map data using Open3D and OpenCV

Software Engineering Intern

Ivy Global Education

Sep. 2016 – Dec. 2018 Toronto, ON

- Redesigned UI of various company websites with C# / ASP.NET
- Optimized SQL queries to reduce load times on landing page by over 80%

PROJECTS

Walking Random, Massively, and Efficiently

An efficient probabilistic distributed graph system

Jul. 2019 – Sep. 2019

- C++ Implementation of the [paper](#) of the same name
- Lead discussion of paper-reading seminar at Uber ATG
- Efficiently perform tasks such as PageRank and Minimum Spanning Tree over graphs distributed over many systems / cores
- Full coverage of code using unit tests

Technologies Used: C++ (Boost / MPI libraries)

LANGUAGES

C++ Python Haskell Bash Java SQL ASP.NET
C# HTML / CSS / JS

TECHNOLOGIES

Apache Spark CMake Google Ceres Solver Octave
Open3D OpenCV MongoDB React TensorFlow

COMPETITIONS

International Olympiad in Informatics

Gold Medal

Sep. 2018 Tsukuba, Japan

Jane Street Electronic Trading Challenge

First Place Team (\$1000)

Jun. 2019 Toronto, ON

Terminal Live AI Challenge

Winning Team (\$1000)

Sep. 2019 Waterloo, ON

ACM-ICPC Regionals

Third Place Team

Nov. 2018 Windsor, ON

EDUCATION

Bachelors of Computer Science

University of Waterloo

Sep. 2018 – Current

Math / CS Average: 87% / 3.74 GPA

RELEVANT COURSES

- Differential Geometry
- Probability (Advanced)
- Operating Systems
- Object Oriented Programming (Enriched)

CERTIFICATES

- Deep Learning Specialization
- Self Driving Cars Specialization
- Stochastic Processes

ORGANIZATIONS

Vice President

The Pure Math, Applied Math, and Combinatorics and Optimization Club

Nov. 2018 – Present Waterloo, ON

- Organized math seminars and competitions for members
- Gave 30 minute talk – “On the many ways to construct \mathbb{C} , \mathbb{H} and beyond”