

Benjamin Chislett

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<https://github.com/benchislett>

Profile

Computer Science student with a thirst for knowledge. Skilled programmer with experience in parallel computing, machine learning, full-stack development, research, and computer graphics.

Key Skills: C++ | Python | High Performance Computing | Deep Learning | Real-Time Ray Tracing

Experience

Research Intern

May 2021 - Present

EcoSystem Research Lab, University of Toronto

- Actively researching techniques for highly performant machine learning code generation

Machine Learning Engineer

Apr 2021 - Aug 2021

Activeloop AI, California (Remote)

- Designed and developed infrastructure for a cloud machine learning data platform

Software Developer

Sep 2018 - Jul 2019, May 2020 - Dec 2020

Mysa Smart Thermostats, St. John's, NL

- Maintained and rewrote a full stack typescript application used to investigate user accounts distributed over an AWS backend
- Authored a suite of libraries for interacting with AWS at multiple tiers of abstraction
- Developed various new features for a react-native mobile application
- Architected a data pipeline used to create a data lake and perform analytics
- Led a small team of developers to create an IoT-based device simulator

Research Intern

Jul 2019 - Sep 2019

Okinawa Institute of Science and Technology, Okinawa Prefecture, Japan

- Researched the Compressive Split-Step Fourier Method for efficiently solving the Gross-Pitaevskii equation
- Maintained GPUE: a CUDA/C++ application for simulating Bose-Einstein condensates
- Authored GPUE.jl: a JuliaLang-GPU implementation of GPUE

Projects

GPU-Accelerated Ray Tracer

- Read over 100 papers on real-time ray tracing on the GPU
- Applied data-oriented design and GPU programming principles to develop an accelerated path tracer in CUDA with support for photorealistic materials and models

Education

Honours Bachelor of Science, Computer Science

Sep 2019 - Present

University of Toronto, Scarborough, ON

- Cumulative GPA: 4.00
- Teaching assistant for MATA22 and CSCA48, Winter 2020/21
- ICPC North America Finalist 2020/21