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