

Benjamin Chislett

benjamin.chislett@mail.utoronto.ca
<https://github.com/benchislett>

Experience

Research Intern

May 2022 - Sep 2022

Dynamic Graphics Project, University of Toronto

- Researched intrinsic triangulations and coarsening applications for multigrid methods on 3D surfaces

Research Intern

May 2021 - Sep 2021

EcoSystem Research Lab, University of Toronto

- Researched and implemented techniques for highly performant machine learning code generation
- Received NSERC Undergraduate Student Research Award (USRA) funding

Machine Learning Engineer

Apr 2021 - Aug 2021

Activeloop AI, California (Remote)

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

Software Developer

Sep 2018 - Jul 2019, May 2020 - Dec 2020

Mysa Smart Thermostats, St. John's, NL

- Developed and maintained a full-stack TypeScript web interface for 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 using IaC and SQL

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

- Applied data-oriented design and GPU programming principles to develop an accelerated path tracer in CUDA with support for photorealistic materials and models
- Implemented SOTA techniques for GPU-accelerated Real-Time Ray Tracing

Education

Honours Bachelor of Science, Computer Science

Sep 2019 - May 2023 (05/23)

University of Toronto, Scarborough, ON

- Cumulative GPA: 3.96
- Teaching assistant for MATB24 and CSCB36, Summer 2022
- Teaching assistant for CSCB36, Fall 2021
- Teaching assistant for MATA22 and CSCA48, Winter 2020/21
- ICPC North America Finalist, 2020/21