Benjamin Chislett

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Experience

Research Intern *May 2022 - Present*
Dynamic Graphics Project, University of Toronto
- Researched intrinsic triangulations and coarsening applications for multigrid methods on 3D surfaces
- Actively developing a high-performance intrinsic decimation library in C++ for robust and efficient numerical simulations
- Aiming to publish in Jan 2023

Research Intern *May 2021 - Sep 2021*
EcoSystem Research Lab, University of Toronto
- Researched and implemented techniques for highly performant machine learning code generation
- Developed proposed improvements for machine learning compiler pipelines in CUDA/C++
- 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

Education

Honours Bachelor of Science, Computer Science *Sep 2019 - May 2023 (05/23)*
University of Toronto, Scarborough, ON
- Cumulative GPA: 3.96
- ICPC North America Finalist, 2020/21

Teaching Assistant at University of Toronto
- Computability and Computational Complexity (CSCC63), Algorithm Design and Analysis (CSCC73), Computer Graphics (CSCD18) *Fall 2022*
- Introduction to the Theory of Computation (CSCB36), Linear Algebra 2 (MATB24) *Summer 2022*
- Introduction to the Theory of Computation (CSCB36) *Fall 2021*
- Linear Algebra 1 (MATA22), Introduction to Computer Science 2 (CSCA48) *Winter 2020/21*