

# Benjamin Chislett

1295 Military Trail, Toronto, ON, M1C 1A4

benjamin.chislett@mail.utoronto.ca

<https://github.com/benchislett>

## Profile

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First year Computer Science student with a thirst for knowledge and a passion for learning. Skilled programmer with experience in full-stack development, research, and artificial intelligence.

**Key Competencies:** CUDA/C++ | GPU Computing | Python | node.js | AWS | Machine Learning  
Agile | Problem-Solving | Work Ethic | Adaptability | Communication | Teamwork | Organization

## Experience

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### Research Intern

*Jul 2019 - Sep 2019*

*Okinawa Institute of Science and Technology, Okinawa Prefecture, Japan*

- Maintained GPUE: a CUDA/C++ application for simulating Bose-Einstein condensates
- Authored GPUE.jl: a Julia-GPU implementation of GPUE

### Software Developer

*Sep 2018 - Jul 2019*

*Mysa Smart Thermostats, St. John's, NL*

- Maintained a full stack javascript application for browsing and updating an AWS backend
- Developed a query library for interacting with AWS through object-oriented abstractions

## Projects

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### Convolutional Autoencoders for Image Compression

- Researched machine-learning and computer vision techniques
- Developed a novel image compression algorithm using convolutional autoencoders and data compression

### Evolutionary Algorithms for Polygonal Approximation of Images

- Implemented meta-heuristic optimization of image approximation with hill-climbing genetic algorithms
- Used low-level image rendering APIs to create live video output over time

### Feature-Rich Ray Tracer

- Designed and implemented a CPU ray tracer with support for triangle meshes, materials, textures, lighting, and more.

## Education

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### Honours Bachelor of Science, Computer Science

*Sep 2019 - Present*

*University of Toronto Scarborough, Scarborough, ON*

- Cumulative GPA: 4.00