

Patrick Bies

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PROFILE

A personable, energetic, and reliable Computer Science student with strong time management and collaboration skills developed from academic, professional, and extracurricular activities.

EDUCATION

University of Ottawa

Expected Graduation in 2027

Bachelor of Science: Joint Honours in Computer Science and in Mathematics

- CGPA: 8.73/10
- Currently in my second year
- Dean's List and Entrance Scholarship

Our Lady of the Bay Catholic High School

Collingwood, Ontario (2019 - 2023)

- Graduated in 2023 with a 95% average

RELATED SKILLS

- Programming languages: C++, Java, TypeScript, Python
- Web development: HTML, CSS, Tailwind, React.js, Next.js
- Mobile development: React Native, Flutter
- Backend development: PostgreSQL, GraphQL, MongoDB, Clerk

RECENT PROJECTS

React.js - iGEM uOttawa Wiki Website

Ongoing

- Developing a wiki website for iGEM at uOttawa
- Collaborating with a small team to design and implement features

React Native - iOS Music Suggestion App

Winter 2024 - Ongoing

- Using React Native Expo for the front end with Clerk and Convex.dev for the backend
- Features include a collaborative filtering based recommendation system and the functionality for users to post and discover songs

C++ - Convolutional Neural Network

Spring 2024

- Implemented a CNN from first principles in C++ using multithreading and CUDA

C++ - Eulerian Fluid Simulation

Summer 2023

- Built a custom GPU-based pipeline using OpenGL to efficiently solve the Navier-Stokes equations; developed a general system providing the ability to utilize textures and shaders for simulation computations

WORK EXPERIENCE

DataAnnotation

Winter 2023 - Ongoing

Software Developer - AI Model Training

- Solved and generated complex programming problems focusing on data structures and algorithms
- Assessed AI-generated code responses for best practices, efficiency and correctness

Ravenna Country Market

Summer 2021 - Summer 2024

Market Assistant

- Food and ingredient preparation; retail sales; customer service

Blue Mountain Resort

Winter 2020 - Summer 2023

Hardgoods Associate - Multiple stores around Blue Mountain Resort

- General customer service and sale of various products, including skis, snowboards, and ski boots across multiple stores at Blue Mountain Resort

Blue Mountain Resort and Georgian Peaks Ski Club

Winter 2019 - Winter 2021

Ski Instructor

PERSONAL INTERESTS

- Competitive programming, machine learning, and physics simulations
- Competitive freestyle skier (previously with the Ontario Escarpment Freestyle Team)
- Investing and trading stocks
- Rock climbing, running, and weightlifting

REFERENCES

Available upon request