

# JAKE EDMONSTONE

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WATERLOO, ON

Undergraduate student in pure mathematics and computer science with a strong foundation in real analysis, logic, and algebra. Experienced in teaching, independent projects, and full-stack development through multiple co-op placements. Eager to contribute to mathematical research while expanding theoretical depth and problem-solving expertise.

## EDUCATION

University of Waterloo | GPA: 87.52

2022 – Expected 2027

Bachelor of Mathematics | Joint Computer Science and Pure Mathematics

Waterloo, ON

## SKILLS

Tools and Environments:  $\text{\LaTeX}$ , Typst, Git, Vim

Programming Languages: Python, C/C++, JavaScript/TypeScript, C#

## TEACHING

Mathematics Tutor

May 2024 – August 2024, January 2025 – April 2025

University of Waterloo Math Tutoring Centre

Waterloo, ON

- Provided drop-in tutoring support for undergraduate algebra courses: MATH 135, 136, and 235.
- Helped students work through problems, clarify concepts, and understand proof-based material.

## EXPERIENCE

Software Engineer Co-op (Hybrid)

May 2025 – August 2025

Constant Contact Inc.

Kitchener, ON

- Contributed to the development and maintenance of production systems related to email delivery.
- Implemented new features, fixed bugs, and wrote unit tests as part of an agile development team.
- Collaborated through code reviews, sprint planning, and issue tracking using tools like Jira and Git.

Full-stack Developer Co-op (On-site)

September 2024 – December 2024

BCS Automation Ltd.

Belleville, ON

- Designed and trained unsupervised models to detect irregular patterns in time-series data.
- Developed data pipelines and querying infrastructure to support large-scale numerical analysis.
- Built tools for interactive data exploration to aid in investigation and interpretation of anomalies.

Full-stack Developer Co-op (On-site)

January 2024 – April 2024

BCS Automation Ltd.

Belleville, ON

- Improved performance of large-scale data systems through redesign of storage and indexing strategies.
- Enhanced system reliability and access control through integration of secure authentication protocols.
- Refactored application infrastructure to support modular design and long-term maintainability.

Application Support Analyst Co-op (Hybrid)

May 2023 – August 2023

Home Hardware Stores Ltd.

St. Jacobs, ON

- Diagnosed and resolved network and application issues across 1100+ retail locations nationwide.
- Supported infrastructure upgrades to POS systems and endpoint devices, improving reliability.

## RELEVANT COURSEWORK

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### Completed

- PMATH 351: Real Analysis
- MATH 235: Linear Algebra 2
- CS 245: Logic and Computation
- CS 241: Foundations of Sequential Programs (Compilers)
- CS 240: Data Structures
- MATH 239: Introduction to Combinatorics
- CO 250: Introduction to Optimization

### Planned by January 2026

- PMATH 432: Mathematical Logic
- PMATH 347: Groups and Rings
- PMATH 367: Topology