

# Anthony Arseneau

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## EDUCATION

### University of New Brunswick

*Masters of Engineering (M.Eng.) in Mechanical Engineering*

Fredericton, NB

Expected December 2027

- Cumulative GPA: 4.3/4.3

### Mount Allison University

*Bachelor of Science in Computer Science, Minor in Mathematics*

Sackville, NB

Graduated May 2025

- Cumulative GPA: 3.7/4.3

## EXPERIENCE

### Meter Services Summer Student

*NB Power*

Bathurst / Eel River Area, NB

May – August 2025

- Performed meter reads in the Bathurst and Eel River area.

### Web Developer

*Personal Contract*

Moncton, NB

May 2024 – Present

- Developed a high-performance website using HTML, CSS, and JavaScript, increasing client visibility and user engagement by over 10 times, attracting more than 2,000 unique users a month.
- Collaborated closely with the client to provide comprehensive assistance throughout the domain registration process, management of the hosting setup, and migration of the website to the new platform.
- Monitored website traffic and performance metrics through advanced analytics tools, such as Cloudflare, which contributed to a 33% improvement in website loading speed, overall security, and user experience.

### Maintenance Worker and Technician

*Madisco Apartments*

Bathurst, NB

Summers 2018 – 2024

- Gathered over 35,000 views on Google Street View by capturing and processing 360-degree footage using image stitching software and geospatial data engineering techniques, increasing client engagement and boosting online visibility.
- Assisted in the installation of new machinery, ensuring compliance with safety and engineering standards.
- Designed mechanical parts for broken or missing components using CAD software like Autodesk Fusion 360.
- Operated heavy machinery to assist with construction and performed basic maintenance tasks, including cleaning, painting, and minor repairs to maintain safe and efficient operations.

## PROJECTS

### Portfolio Website

*Personal Project*

Bathurst, NB

January 2024 – Present

- Created a website hosted on a personal server that showcases all projects and skills, including images and videos.
- Increased personal visibility and engagement by gathering more than 600 unique users per month.
- Implemented responsive design using HTML, CSS, and JavaScript to ensure optimal performance across devices.
- Improved site security and performance by integrating HTTPS and optimizing load times for images and videos.

### Encrypted Messaging Application

*University Project, Computer Networks*

Sackville, NB

January 2024 – April 2024

- Designed a secure messaging application that utilizes cryptographic algorithms, such as RSA, AES, and SHA-256.
- Utilized Computer Networks frameworks and the Java programming language to achieve this project.
- Conducted rigorous testing to ensure data integrity, confidentiality, and resilience against common network vulnerabilities.

### Self-Leveling Robot

*University Project, Digital Signal Processing and Electronics*

Sackville, NB

September 2023 – December 2023

- Developed a robotic platform to balance a steel bearing ball under various perturbations.
- Leveraged CAD software, PID systems, C++, and electrical tools, such as microcontrollers and precise stepper motors.
- Contributed to project planning, troubleshooting, and iterative prototyping in a team environment to optimize performance.

## AWARDS

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### Dean's List

*Mount Allison University*

Sackville, NB

2021-22, 2023-24, 2024-25

- Recognized with Dean's List standing throughout multiple academic years.

- Awarded for outstanding academic performance and excellence among top-performing students.

### Entrance Scholarship

*Mount Allison University*

Sackville, NB

September 2021

- Awarded entrance scholarship upon admission at Mount Allison University.

## CONTESTS

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### Data Challenge Competition

*International Business and Entrepreneurship Centre (IBEC)*

University of New Brunswick, NB

November 2025

- Selected to compete at the Data Challenge competition among the top 10 best performing teams.
- Competition sponsored and judged by quantitative analysts at Vestcor.

### Northeast North America Regional Contest

*International Collegiate Programming Contest*

Sackville, NB

November 2021, November 2024

- Competed against leading universities in the Northeast North America region.
- Recognized as the top performing team from Mount Allison University at the competition.

### Alberta Collegiate Programming Contest

*University of Calgary*

Sackville, NB

October 2024

- Competed in the Alberta Collegiate Programming Contest.

### Atlantic Canadian Programming Contest Finalist

*Science Atlantic, Acadia University*

Wolfville, NS

October 2024

- Achieved 3<sup>rd</sup> place at the 2024 Science Atlantic Programming Competition.
- Recognized as the top performing team from Mount Allison University at the competition.
- Demonstrated advanced analytical and problem-solving skills in competitive programming.

## RELEVANT COURSEWORK

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Digital Twinning, Fluid Mechanics, Digital Signal Processing and Electronics, Artificial Intelligence, Advanced Data Structures, Cryptography, Discrete Structures, Systems Programming, Computer Networks, Object-Oriented Design, Database Systems, Data Science, Algorithm Analysis, Software Design, Data Structures and Algorithms I, Differential Equations, Multivariable Calculus, Linear Algebra, General Physics I, General Physics II, Data Visualization.

## SKILLS

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**Engineering Proficiencies:** CAD Software, 20-sim, MATLAB, 3D Printing, Mechanical Systems Analysis, Robotics, Electrical Troubleshooting, System Optimization, Soldering, Signal Processing, Control Systems, Project Management, Technical Documentation, Physics, Mathematics.

**Programming Languages:** Java, Python, C++, WebDev Languages (TypeScript, HTML, CSS, JavaScript).

**Spoken Languages:** Fluent in French and English.

**Soft Skills:** Problem-Solving, Communication, Teamwork, Leadership, Adaptability, Attention to Detail, Creativity, Conflict Resolution.

## CERTIFICATIONS

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### Diversity, Equity and Inclusion Certificate

*Canadian Centre for Diversity and Inclusion (CCDI)*

Sackville, NB

September 2023

- Completed the Diversity, Equity, and Inclusion Certificate through the Canadian Centre for Diversity and Inclusion.
- Gained skills in promoting inclusive practices, addressing bias, and fostering diverse workplace environments.

### Small Remotely Piloted Aircraft in Visual Line-Of-Sight (VLOS)

*Transport Canada*

Bathurst, NB

July 2019

- Certified to operate small remotely piloted aircraft within Visual Line-of-Sight (VLOS).
- Skilled in safe navigation and control of drones for various applications within VLOS guidelines.