

# Mac Burton

## SOFTWARE ENGINEER

Halifax, NS | 902.476.4883 | [macburton2000@gmail.com](mailto:macburton2000@gmail.com) | <https://macburton.ca>

## Experience

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### Aethera Technologies | Full-Stack Software Engineer

March 2024 – Present

- Developed and deployed full stack software solutions, utilizing Python libraries to create middleware for TCP-based communication between hardware and software systems.
- Designed and implemented user interfaces for control systems, streamlining user interactions with embedded hardware
- Integrated signal processing and control algorithms to enhance the performance of hardware systems and facilitate seamless data transmission.
- Created and maintained detailed design documentation and conducted thorough system-level testing, ensuring robust and reliable software for embedded platforms.

### Department of National Defense | CAF Army Musician

Jun 2019 – Present

- Provided musical accompaniment for military ceremonies and public performances, representing the Canadian Armed Forces (CAF) in both formal and community events.
- Delivered IT support to CAF members during full-time summer employment, improving issue resolution efficiency and reducing dependency on external IT services.
- Appointed Safety 2IC (Second-in-Command) due to demonstrated professionalism, leadership, and commitment to military protocols.
- Ensured compliance with safety regulations during training and performances, enhancing operational readiness and safeguarding personnel.

### Lockheed Martin | Technical Co-op – Software – CSC

Jan 2022 – Apr 2022

May 2020 – Dec 2020

- Developed and deployed Java software for warship systems, ensuring high-quality code met internal standards and testing protocols.
- Collaborated in Agile Scrum teams, utilizing SVN, Jenkins, and Redmine to ensure continuous integration and smooth delivery of features.
- Translated user stories from stakeholders into software solutions, contributing to cutting-edge naval defense technology.
- Conducted code reviews and peer testing, supporting the team's delivery of impactful and dependable software

## Education

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Dalhousie University – Bachelor of Computer Science

October 2023

Dalhousie University – Certificate of User Experience Design and Evaluation

October 2023

## Personal Project

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### Personal Website V1.0 & V2.0

March 2024 – Present

- Designed, programmed, and illustrated a fully custom portfolio website to showcase projects, ensuring both aesthetics and functionality.
- Developed the first version using HTML, CSS, and JavaScript, providing a responsive and user-friendly interface.
- Built an interactive microgame using JavaScript, enhancing user engagement and showcasing advanced programming skills.
- Converted the second version to PHP and integrated jQuery for dynamic content, while self-hosting the website to ensure control over performance and uptime.

## Extracurricular

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### Volunteer Musician – Atlantic Sound Machine

Sept 2023 – Present

### Volunteer Musician – Chebucto Symphony Orchestra

Sept 2022 – Present

### Culinary Support Volunteer – Loaded Ladle

Sept 2022 – May 2023

### Founder and President – Dalhousie Trading Card Game Society

Sept 2019 – May 2023

## Skills & Abilities

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C, C#, Java, Python, HTML, CSS, JavaScript, PHP, Kotlin, XML, R, Windows, macOS, Linux (Red Hat), React, BeautifulSoup4, JFrame, JQuery, Jsoup, PyQt5, Qt Designer, MySQL, SquirrelL, Firebase, Docker, Jenkins, Git, SVN, Unity Collab, Apache, Gradle, Make, PuTTY, .Net Reflector Compiler, VirtualBox, Wireshark, Bitbucket, Jira, Redmine, Trello, Blender, Figma, Emacs, Sublime Text, Vi, Android Studio, Visual Studio Code, Eclipse, IntelliJ, PyCharm, Mbed Studio, Unit Testing, Integration Testing, Regression Testing, Acceptance Testing, White Box Testing, Black Box Testing, Agile, Scrum, Kanban, Waterfall.

Adaptability, Attention to Detail, Communication, Conflict Resolution, Creativity, Leadership, Problem Solving.

## Scholarships & Awards

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### Nokia 3310 Jam 6 – Top 5% in Innovation

Feb 2024

### Global Game Jam – People's Choice Award: Most Creative

Jan 2024

### Department of National Defense – Corporal Promotion

Apr 2023

### Loaded Ladle – Feature Volunteer

Apr 2023

### Global Game Jam – Ubisoft's Choice Award

Feb 2023

### Battlesnake Tournament – Semi Finalist

Jan 2023

### Greenlight Jam – 1<sup>st</sup> Place Best Plan for Diversifiers

Jun 2022

### Atlantic Game Jam – 3<sup>rd</sup> Place Overall

Feb 2022

### Atlantic Game Jam – 1<sup>st</sup> Place in Mechanics

Feb 2022

### Dalhousie University – Sexton Scholar

Aug 2021

### Lockheed Martin – Thanks Award

Aug 2020

### C. H. Campbell Memorial – Entrance Scholarship

Sept 2018