



Ben MacDonald

Computer Science (Bachelor of Science)
Expected Graduation 2025
University of Victoria, Canada

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Links

 github.com/Quantum158
 linkedin.com/in/benj-macdonald

Skills

OS

Windows, GNU/Linux

LANGUAGES

Typescript 
Python 
C++ 
Java 

FRAMEWORKS

Node.js, Express
Arduino, Vue.js, Angular
socket.io, Maven, Gradle

TOOLS

MongoDB, Azure, Github Actions
SQL, VS Code, Vim, Git, Qt

Coursework

- Calculus I & II
- Mathematical Logic and Foundations
- Fundamentals of Programming I & II
- Introduction to Computer Architecture
- MIT OpenCourseWare -
Introduction to Algorithms (Self Study)

Education

2021-2025
CANDIDATE FOR B.SCIENCE IN CS
University of Victoria
Sessional GPA: 4.0

2018-2021
HIGH SCHOOL
Dr. E.P. Scarlett
Percentage: 88%

Interests

Rock Climbing, Technical Theatre,
Robotics

Side Projects

CI Workflow for Jekyll Static Website Previews

Node.js, Azure

- A CI tool allowing contributors to preview their pull request before it is deployed to the master branch of a static site.
- Utilizes a web-server running in Azure which receives data from GitHub Webhooks.

Speed Climbing Training Tool

Python, Qt

- Automatically records, tracks and times climbers during a training session using system clock and http requests to a GoPro.

sACN (Web Protocol) Implementation for Arduino

Arduino, C++, C

- Listens for multicasted sACN web requests, and translates them to LED strip lighting configurations.
- Provides a http user portal, support for automatic VLAN detection and entering a pairing mode.

Experience

2021 Network Alliance

Small Business IT Consultant / Support

- Designed and implemented a new CCTV management solution which increased floor coverage and halved disk-usage.

2020 Calgary Fringe

Broadcasting and Technology Support

- Acted as a liaison between various stakeholders to ensure high quality performances were successfully broadcast.
- Wrote custom software to support operations and automate administrative tasks.

2018-2021 Calgary Climbing Centre

Competitive Rock Climbing Coach

- Coached provincial and national level athletes including designing training regimes, assessing progress, and providing competition support.
- Created an automated system to generate personalized progress reports and training plans for each athlete.

Achievements/Awards

2021 UVic Entry Scholarship for Academic Achievement

- Awarded for maintaining an overall academic average above 85%.

2019 International (Pan-American) Speed Climbing Athlete

- Qualified for the Youth Pan-American games as part of the Canadian team for Speed Climbing (Rock Climbing), by placing 3rd at Canadian Nationals.

2013-2019 National Level Rock Climber

- Competed at Canadian Rock Climbing Nationals each year, medalling in 2013 (Regionals, Gold), 2016 (Nationals, Silver) and 2019 (Nationals, Bronze).