ADAM COURCHESNE

3rd Year Biomedical Engineering Student

University of Waterloo

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TECHNICAL SKILLS

- JavaScript
- HTML
- CSS/SCSS
- PostgreSQL
- Golang
- ReactJS
- NodeJS
- OOP
- C++
- C#
- Visual Studio Code
- Version Control
- MATLAB
- AWS SNS
- MailChimp
- Squarespace
- Arduino

NOTABLE DISTINCTIONS

Matt Peters Volunteer Service Award (2020)

- Awarded for completing 250+ volunteer hours and demonstrating strong leadership qualities with the Duke of Edinburgh program

Piotrowski Consultants Ltd. Engineering Scholarship Award (2019)

- Awarded to a student in engineering for academic excellence and a high standard in community involvement

Diplôme d'études en langue française niveau B2

- Passed the B2 level DELF examination which certifies French-language abilities for non-native speakers

INTERESTS

- Team sports
- Fantasy sports
- Amateur weightlifter and woodworker
- Strong advocate for the Oxford Comma
- Aspiring Lego Star Wars collector

WORK EXPERIENCE

Software Developer/Digital Marketing Intern

MetricAid | May 2020 - Present

- Developed multiple in-production features using **VS Code, Golang**, **JavaScript**, **CSS**, **HTML**, and **PostgreSQL** such as:
  - A help page including 70+ FAQ and pagination
  - A rating tool used to collect valuable marketing data that is now the third most interacted with feature in the entire application
  - A functional foundation for sending push notifications to mobile users using **AWS SNS** and the **AWS SDK for GO**
- Programmed a login and register screen in **ReactJS**, **SCSS**, and **NodeJS** with functioning authentication and intuitive user input error handling as one of three pioneering developers for a new MetricAid initiative
- Managed the publishing of two newsletter campaigns using **MailChimp** and **Squarespace,** each of which achieved record interaction metrics for the company
- Currently working part-time managing email campaigns to prospective clients in both Canada and the USA

PROJECTS

Flattening the Curve

Created an epidemiological model for COVID-19 spread using **MATLAB**

- Solved a system of nonlinear 1st order ODE's using **MATLAB** to predict epidemic dynamics based on parameters such as number of close contacts, population size, and population density

MotorNeuron

Designed a novel wearable solution for peripheral neuropathy as part of a team

- Used **Arduino**'s, vibrating motors and pressure-sensitive conductive sheets to create a wearable device that mimics the sensations lost in the lower limbs in peripheral neuropathy patients

EDUCATION

Biomedical Engineering

University of Waterloo | September 2019 - April 2024

- Candidate for a BASc in Biomedical Engineering with the goal of completing a sports engineering specialization
- Completed two courses gaining fundamental knowledge of **OOP**, data structure design, and algorithm implementation in **C#** and **C++**
- Courses I've enjoyed:
  - BME 122: Data Structures and Algorithms
  - BME 294: Circuits, Instrumentation, and Measurements
  - BME 261: Prototyping, Simulation and Design
  - STV 205: Cybernetics and Society