# Anthony Weston

**2B Software Engineering**
**University of Waterloo**

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## Skills

**Languages**

Experienced

- C/C++

Proficient

- Rust
- Java
- C#
- HTML and CSS
- Python
- JavaScript
- SQL and NoSQL

Familiar

- LaTeX
- MATLAB
- ARM Assembly
- cmake

**Tools & Technologies**

- Node.js
- MongoDB
- NFC
- MQTT
- Git
- Visual Studio

## Independent Learning

- Cryptography I, Stanford University
- Intro to Machine Learning, Udacity
- *Chaos Engineering*, Netflix
- *Graph Databases*, neo4j
- Service-Oriented Architecture, University of Alberta

## Work Experience

**Nymi – Software Developer** Jan 2018 – Apr 2018

- Led development of a critical reliability Windows credential provider, a low-level interface called by the Windows Login Subsystem for biometric authentication and login with the Nymi Band
- Responsible for re-design of credential provider to update to new generation of Nymi Enterprise Solution including new asynchronous Nymi Band Bluetooth communication service and token-based authentication for communication with Nymi Enterprise Server

**Nymi – Software Developer** May 2017 – Aug 2017

- Led development of robust and efficient NFC unique ID reading service used for identification and intent for automatic login, a core application feature in Windows credential provider
- Developed Lock Control enterprise authentication solution, improving rate of successful login to over 95%

## Projects

**Mozilla Servo Browser Engine Open Source Contributor** Mar 2018 – Present

- Implemented high-value feature to accurately measure the heap usage of the JavaScript Document Object Model for each loaded webpage, recognized as Notable Addition in This Week in Servo
- Added new class deriving ObjectPrivateVisitor and implemented Rust to C++ Foreign Function Interface to allow use of SpiderMonkey API to measure DOM objects, resulting in minor version change in rust-mozjs crate
- Updated Servo memory profiling script to use new interface, improving accuracy of memory reporting for DOM objects by 33%

**Spotify User Data Graph** Feb 2018 – Present

- Created scalable graph structure with hybrid indexing to achieve average-case constant time node and edge lookup from Spotify song URI
- Developed clustering algorithm which traverses graph to find optimal song groupings based on weightings determined by user listening patterns

**DoppelGallery – Hack the North 2017 Winner** Sept 2017

- Created a reverse image search web application using OpenFace API which matches your face to people in historical paintings and photos

**Embedded Systems, Waterloo Hyperloop Team** Sept 2016 – Feb 2017

- Implemented MQTT service for processing sensor data, reducing message latency by 80%