Anthony Weston

2B Software Engineering
University of Waterloo

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Skills

Languages
- C/C++
- Java
- Python
- Rust
- C#
- JavaScript
- HTML and CSS
- SQL
- ARM Assembly
- LaTeX
- MATLAB

Tools & Technologies
- Visual Studio
- Git
- NFC
- Node.js
- sklearn
- MongoDB
- cmake
- MQTT

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

Work Experience

University of Waterloo – Undergraduate Research Assistant   May 2018 – Present
- Developing synchronization primitives for next generation Non-Volatile RAM

Nymi – Software Developer   Jan 2018 – Apr 2018
- Led development of critical reliability Windows credential provider, a low-level interface called by the Windows Login Subsystem for biometric authentication and login with the Nymi Band
- Redesigned 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
- Spearheaded development of robust and efficient NFC UID reading service used for identification and intent for automatic login in credential provider
- Developed Lock Control enterprise authentication application, 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 ↗
- Updated Servo memory profiling script to use new Rust to C++ Foreign Function Interface, improving accuracy of memory reporting for DOM objects by 33%
- Implementing compiler plugin which parses WebIDL files to verify the inheritance of DOM objects

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

Waterloo Hyperloop Team – Embedded Systems   Sept 2016 – Feb 2017
- Implemented MQTT service for processing sensor data, reducing message latency by 80%