Manuel Dionne

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Software Engineering Class of 2021 – University of Waterloo
French and English

Skills and Tools

Fluent: Python, C, C#, HTML5, SQL **Intermediate**: PHP, C++, CSS**,** JavaScript
GNU/Linux, Git, Github, Raspberry Pi, Visual Studio, SVN, Gimp, Ethereum, Arduino

Relevant Experience

Automation Software Developer – *D+H (Now Finastra)* **May 2017 – September 2017**

- Created tools for automation of file generation and processing using C# and Selenium.
- Automated transaction verification for Collateral Guard regression testing.
- Cut down regression testing process from **3 days to 3 hours** using Powershell scripts.

Freelance IT – *Digital Signage Setup* **August 2016**

- Installed Xibo digital signage software on a display server and programmed widgets.

Personal Projects

WiFi Vision – *Python, matplotlib, Arduino, C++ (Best Hack – Hack the North)* **September 2017**

- Robotic arm on a rail 3d printed rail system that uses 6 Arduino ESP8266 WiFi chips to determine signal strength and plot a view of objects behind walls.

CoinZ – *Python, urwid, scikit-learn* **June 2017 – Present**

- Command-line UI and framework for running algorithmic trading bots on crypto currency exchange markets. Algorithms include: Simple MACD, ARIMA price predictor, etc.

Dorifto.racing – *PHP, Bash, HTML, CSS, ffmpeg* **May 2017**

- Initial D fan website dedicated to overlay music onto a video of choice using ffmpeg.
- Receives, on average, 30 views per day with a total of 6,000 page views to date.

Tiva Web Server – *C++, Python, HTML, CSS* **November 2016**

- Fully functioning web server for a Tiva C Series microcontroller that has an Orbit Boosterpack.
- Includes most functions from RFC 2616 (HTTP) like GET, POST, error codes, etc.

Bluetooth Messaging – *C#, WPF, 32feet.NET Bluetooth* **December 2016**

- Allows users to receive SMS on their Bluetooth equipped PC using the Message Access Protocol. Sleek UI, built entirely using XAML and WPF.
- Works on any phone that has Bluetooth and supports the MAP protocol.

VoteCDJ – *C#, PHP, MySQL, Javascript (Bronze – Canada-Wide Science Fair)* **June 2015 – May 2016**

- Voting system created for the student government at my school.
- Allows users to log-in through an online portal using their student ID. The entire user interface was made from scratch using HTML and CSS.

SatTrak – *C#, Python, WF (Bronze – Canada-Wide Science Fair)* **June 2014 – May 2015**

- Software created to facilitate the tracking and acquisition of satellite downlink from Earth orbit. It is made for ham radio operators.
- Fetches TLE data from an online NORAD database and calculates the position of satellites to move a robotic antennae controlled by a Raspberry Pi.

Awards and Achievements

- Winner for best hack at Hack the North (1000 participants) **September 2017**
- SHAD Fellow **July 2016**
- UNB Beaverbrook Scholar $40,000 Recipient **May 2016**
- Two time bronze medalist at the Canada-Wide Science Fair (Over 600 participants) **May 2016**
- International Summer School for Young Physicists Award – Perimeter Institute **July 2015**