MATTHEW BRAUN

Available for: 8 Month Co-op Winter 2020
References available upon request

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Engineering Co-op Program
University of Alberta

PROJECTS

3D Printer [Photos]
📅 January 2016 - April 2016
- Built a 3D Delta Printer from scratch
- Printer is roughly 1 meter in height, and has a printable diameter of 25cm
- Run with an Arduino ATMega 2560 microcontroller, and controlled on a PC.
- *Utilized:* Atmel, Arduino, Repetier, PronterFace, Simplify3D, Marlin, C++

Tweet Heat [Demo Video]
📅 November 2018
- Used a Twitter API key to collect latitude/longitude coordinates of live Tweets at the time of posting, along with the Tweet they posted
- We won the HackED Beta 2018 hackathon competition, and a demo can be found on my website
- This project was coded in under 24 hours
- *Utilized:* Python, Flask, HTML, SQLite, API Keys

Audio Visiualizer [Demo Video]
📅 March 2019 - April 2019
- Created a program which would take an audio file as input, and convert it into a 3D frequency bar graph animation.
- *Utilized:* Qt, C++, Algorithms

My Website [matthewbraun.ca]
📅 Aug 2019 – Ongoing
- This is the project I am working on currently. It is a work in progress, but check it out if you'd like to learn more about my projects!
- *Utilizing:* HTML/CSS, PHP, JavaScript

WORK EXPERIENCE

Deskside Support Analyst
Compugen Inc. [Link]
📅 May 2019 - Aug 2019 (Full-time)   📍 Edmonton, AB
- Worked with hundreds of Government of Alberta employees, at several different Edmonton office locations, on a large-scale Windows 10 Enterprise domain
- Communicated with these clients effectively to ensure that their issues were resolved in a timely manner
- These issues entailed work such as: updating BIOS firmware, reimaging PCs, network diagnostics, editing registry keys, updating databases, replacing laptop parts.

Concrete Repair Labourer
Crack Chaser Concrete Repair [Link]
📅 Jul 2015 - Aug 2018 (Full-time)   📍 Edmonton, AB
- Worked effectively and safely in high-stress environments, in teams as well as on my own.
- Poured several different concrete + epoxy structures, such as driveways, staircases, ramps, industrial floors, while ensuring a safe work environment
- Received training on several various pieces of heavy-duty power equipment, such as gas-powered saws, jackhammers, concrete mixers

LANGUAGES/SKILLS

Python | C | C++ | HTML | CSS | PHP
SQL | MATLAB | Java | JavaScript | Bash

Web Scraping | Web Parsing | Web Development
3D Printing | Data Visualization | Digital Media Editing
Dynamic Programming | Data Structures

Windows 10/8/7/Vista/XP | Linux Ubuntu | LTSpice
Microsoft Office | Google Drive/Sheets/Word
Git | Visual Studio | Qt | LaTeX | ROS | MySQL
Atmel | Arduino | Flask | BeautifulSoup | OpenCV

EXTRA-CURRICULARS

Software Team Member
Space Exploration Alberta Robotics [Link]
📅 Sep 2018 - Ongoing
- Worked on drive controls, and object shape detection for our team's rover
- Currently working on fixing bugs with the team's website

Guitar Teacher
Heart of the City Music Program [Link]
📅 Sep 2017 - Ongoing
- Teach guitar/piano for kids in grades 4-6, as well as perform at their fundraising events
- I also provide website support for this organization

About Me
- I enjoy going rock climbing and weightlifting
- Lately, I've been developing a small Android app
- I like music! I have been playing guitar for 15 years, and piano for about 7

EDUCATION

BSc. Computer Engineering, Co-op
University of Alberta
Completed Academic Terms: 5/8
Completed Work Terms: 1/5
📅 Sept 2016 – May 2022

Achievements + Qualifications
- Faculty of Engineering Academic Excellence Scholarship
- Rutherford Scholarship
- Have a Class 5 Advanced Driver's License and a registered vehicle in Alberta