

MATTHEW BRAUN

Searching for: 8 Month Coop Winter 2020


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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. Build is similar to Kossel printers, but I ordered all the parts online separately.
- Printer is 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
- This project won the Hacked Beta 2018 hackathon competition, and a demo can be found on my website
- Utilized: Python, Flask, HTML, SQLite, API Keys

Audio Visualizer [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.
- 3D Visualizer demo can be found on my website
- Utilized: Qt, C++, Algorithms

My Website [matthewbraun.ca]

 Aug 2019 - Ongoing

- This is the project I am working on currently. It is not completely finished yet, but check it out if you'd like to see more about me and my projects!
- Utilized: HTML/CSS, PHP, JavaScript

WORK EXPERIENCE

Deskside Support Analyst

Compugen Inc.

 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

 Jul 2015 - Aug 2018 (Full-time) 📍 Edmonton, AB

- Worked effectively and quickly in high-stress environments, in teams and on my own.
- Poured several different concrete structures, such as driveways, staircases, ramps, curbs etc.
- Operated numerous pieces of heavy-duty power equipment, such as gas-powered saws, jackhammers, concrete mixers

EDUCATION


BSc. Computer Engineering, Co-op

University of Alberta

Completed Academic Terms: 5/8

Completed Work Terms: 1/5

GPA: 3.0

 Sept 2016 - May 2022

- Received Faculty of Engineering Academic Excellence Scholarship, as well as the Rutherford Scholarship
- Took micro + macro economics as an elective
- Have a Class 5 Advanced Driver's License and a registered vehicle in Alberta

LANGUAGES/SKILLS/TOOLS

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

Web Scraping/Parsing Web Development
3D Printing Data Visualization Audio 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 for our team's rover
- Currently working on colour/shape detection software using OpenCV for our next competition

Guitar Teacher

Heart of the City Music Program [Link]

 Sep 2017 - Ongoing

- Teach guitar/piano for kids in grades 4-6
- Also perform at their fundraising events occasionally

About Me

- I enjoy going rock climbing and weightlifting
- I like music. I have been playing guitar for 15 years, and piano for about 7
- Recently, I've been working on adding stuff to my website
- I am also just starting to work on a small Android game