MATTHEW BRAUN

Searching for: 8 Month Coop Winter 2020

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Engineering Co-op Program
University of Alberta

PROJECTS

3D Printer[Picture]
 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 [GitHub]
 November 2018
- Developed a location heat map generated from live tweets across all of North America
- This project won the HackED Beta 2018 hackathon competition, and a demo can be found on my website
- Used a Twitter API key to collect latitude/longitude coordinates of Tweets which had location data enabled at the time of posting, along with the Tweet they posted
- *Utilized:* Python, Flask, HTML, SQLite, API Keys

AudioVisiualizer [GitHub]
 March 2019 - April 2019
- Created a program which would take a song (any mp3 file) as input, and convert it into a frequency-magnitude graph over time
- In other words, the program would tell you what notes are being played, and how loud those notes are playing at any time within the mp3 file
- 3D Visualizer demo can be found on my website
- *Utilized:* Qt, C++,

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 :)
- *Utilized:* HTML/CSS, PHP, JavaScript

EXTRA-CURRICULARS

Software Team Member
Space Exploration Alberta Robotics
 Sep 2018 - Ongoing
- Turpis egestas maecenas pharetra convallis.

Guitar Teacher
Heart of the City Music Program
 Sep 2017 - Ongoing
- Teach guitar/piano for kids in grades 4-6
- Part of performance troupe as well

Hackathons
HackED
 Nov 2018, Jan 2019
- Have attended two hackathons.
- The first hackathon I went to, me and my team won (See the Tweet-Heat project!)

EDUCATION

3rd Year BSc. Computer Engineering, Co-op
GPA: *3.0/4.0*
University of Alberta
 Sept 2016 – May 2022

EXPERIENCE

Deskside Support Analyst (Full-time)
Compugen Inc.
 May 2019 - Aug 2019
 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, phone problems, reimaging, network diagnostics, hard drive wiping, editing registry keys, updating database records, software installations, replacing laptop parts, reconnecting workstations.

Concrete Repair Labourer (Full-time)
Crack Chaser Concrete Repair
 Jul 2015 - Aug 2018
 Edmonton, AB
- Worked in teams effectively and safely in high-stress environments.
- Poured various 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
- Planned, coordinated, and organized jobs with other employees efficiently

LANGUAGES/SKILLS/TOOLS

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

Web Scraping/Parsing   Web Development
3D Printing   Data Visualization
Search/Sorting Algorithms   Time Complexity
Dynamic Programming   Makefiles   Data Structures

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