# **CATHERINE BURNS**

Systems Design Engineering student seeking co-op position for Winter 2021

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613-897-0100

github.com/cab40

My website

in My LinkedIn

### **EXPERIENCE**

#### **Graphic Designer and Artist, Ottawa, (Freelance Sept 2015 – ongoing)**

- Experience in various visual arts media including oil, acrylic, water colour, charcoal, graphite and digital.
- My artwork has been sold for fundraising and commissions.
- Designed logos for ChangeRoom app (Best Ottawa Business awards 2019).
- Designed clothing logos for varsity teams and gradwear, and created yearbook covers.

# Swim Instructor & Lifeguard, City of Ottawa - Richcraft and Plant Recreation Centres (Feb 2019 – Sept 2020)

- Trained and enforced COVID-19 countermeasures to limit transmission risks at public facilities and communicated new protocols to clients.
- Demonstrated strong work ethic and taught with encouragement and positive reinforcement.
- Wrote clear and progressive lesson plans, provided detailed assessments with constructive feedback, communicated effectively with clients.
- Supervised assistants, collaborated effectively with lifeguard team during routine and emergency situations.

# Community Centre Youth Staff, Qualicum-Graham Park, Ottawa, (Sept 2015 – May 2020)

## **PROJECTS**

#### **Linear System Solver**

Using C without library functions, I created a program to solve and store user input linear systems, check solutions to previously solved linear systems, and output all linear systems.

#### **SmartBrain**

Web app using Clarifai API to detect and locate a face in a picture for user sign-in/up. Built up of several different parts using React.js for front-end, Node.js and Express.js for backend, and finally a PostgreSQL database to log the number of entries each user has made.

#### **Personalized Book Recommendation System**

I wrote a Ruby program which reports the book most similar to a specific title based on user ratings. Recommendations were based on each book's ratings as a vector and finding the cosine angle between the two vectors.

#### **Personal Website**

Used Bootstrap for the core framework of the website to have a more responsive design as well as implementing elements of CSS grid and flexbox.

#### **SKILLS**

#### **Programming**

C C++ Python JavaScript SQL Ruby

#### Tools & Technologies

HTML 5 CSS 3 Git
Bootstrap 4 MySQL API
React/Redux Rails Node
Photoshop Adobe XD

#### **EDUCATION**

#### Systems Design Engineering Co-op (1A)

University of Waterloo (2020 – 2025)

#### **E-LEARNING**

- UX Design Essentials Udemy
- Complete Web Developer Udemy
- Python for Everybody Coursera

# **QUALIFICATIONS & AWARDS**

- University of Waterloo President's Scholarship of Distinction.
- Finalist Ottawa Young at Art 2019, Art Battle Champion 2018, Art Award for 4 consecutive years.
- National Lifeguard, Red Cross Water Safety Instructor, First Aid with CPR & AED, Airway Management.

## **ACTIVITIES & INTERESTS**

- Art, design, computer science and technology.
- Competitive soccer for Ottawa City, varsity soccer, futsal.
- Tennis (varsity tennis team captain 2019 and city tennis finalist 2018-19).
- Prom Rep responsible for event planning, fundraising and sadly re-scheduling