# CATHERINE BURNS

**Systems Design Engineering student**

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github.com/cab40

🌐 github.io/Portfolio-2020/

in catherine-burns-540b51194

## 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.

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

## PROJECTS

**SmartBrain**

- Created a web app using Clarifai API to detect and locate faces in pictures uploaded by users.
- Composed of React front-end, Node and Express for back-end, and a postgreSQL database to log user accounts and entries.

**Personalized Book Recommendation System (Ruby)**

- This is a program which reports books most similar to specific titles based on user ratings.
- Recommendations based on cosine similarity between the book vectors.

**Personal Website**

- Personal website designed to display portfolio and highlight abilities using HTML, CSS, and Javascript.
- Used Bootstrap for the core framework to create a more responsive design as well as applying elements of CSS grid and flexbox.

**Linear System Solver (C)**

- Created a linear system solver program, to solve and store user input linear systems, check solutions to previously stored systems, and output to a file.
- Implemented the usage of arrays, structures, and pointers.

## SKILLS

**Programming**

| | | |
|---|---|---|
| C/ C++ | Python | Ruby |
| JavaScript | SQL | |

**Tools & Technologies**

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

## EDUCATION

**Systems Design Engineering Co-op (1A)**
University of Waterloo (2020 – 2025)

## E-LEARNING

- User Experience Design Essentials Udemy
- The Complete Web Developer Udemy
- The Python Mega Course Udemy

## 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 re-scheduling.