# Jared Bentvelsen

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# HIGHLIGHTS OF QUALIFICATIONS

- Developed excellent work ethic, teamwork, and leadership skills working as a Lifeguard/Swim Instructor/Deck Supervisor for the City of Mississauga
- Significant experience programming in Python, Java, C, and C++ through school, personal projects, and self-teaching, and industry experience
- Some experience with HTML, CSS, and NASM
- Certified in Standard First Aid with CPR-C
- Worked on the Static Analysis team for Synopsys Inc. in Calgary AB.

## RELEVANT EXPERIENCE

Static Analysis Intern

May 2020 – May 2021

Synopsys Inc, Calgary AB

- Working on the Coverity Static analysis tool, fixing bugs within the C++ code base, and writing tooling in Python to automate reducing issue-causing benchmarks down to minimal reproducers
- Extensive use of BASH, Make, and Git.

Summer Research Assistant

May 2019 - August 2019

McMaster University, Hamilton ON

- Worked with XML files to update a flight simulation program's C++ XML library from Arabica to pugixml.
- Analyzed and labeled drone footage to improve a machine learning tracking algorithm

#### **EDUCATION**

Bachelor of Engineering, Software Engineering McMaster University, Hamilton, ON September 2018 – April 2022

Achieved a GPA of **11.6/12** as well as the Dean's Excellence Award Relevant Courses:

• Discrete Mathematics I & II

Software Development Skills

Data Structures and Algorithms

• Digital Systems & Interfacing

# **PERSONAL PROJECTS**

Java Platform Game

2017

- o Created a unique and fully functioning platform game using only Java graphics.
- Flamingo Web App

2020

- O Created a mental health resource web application with a team of three others during **DeltaHacks 2020**. Built using HTML, CSS, JavaScript, and NodeJS.
- Reddit Web() 2020
  - Created a web application with a team of two others as a final project, to visualize graphical connections between subreddit forums from <u>reddit.com</u>
  - o Front end built with HTML, CSS, and JavaScript. The back end graph theory algorithms written in Java, using Maven.

Lifeguard/Swim Instructor/Deck Supervisor City of Mississauga, Mississauga, ON October 2016 – August 2019

- Lifeguarded programs such as fun swims, lane swims, rentals, and fitness classes
- Taught swimming classes ranging from Swim for Life 1 to Star Patrol (ages 4 to adult)
- Supervised lessons, which involved a variety of problem-solving situations, such as managing teams of instructors, interacting with parents, evaluating children, and maintaining the pool deck

Teaching Assistant for Introductory Mechanics / Electromagnetism Physics September 2019 – April 2020 McMaster University, Hamilton ON

- Conducted tutorials and labs
- Marked tutorial quizzes, midterms, and labs
- Invigilated midterms
- Assisted and taught first year students in solving physics problems

## **EXTRA-CURRICULAR ACTIVITIES & INTERESTS**

Rock Climbing club

2019

- o Weekly practices climbing and bouldering
- McMaster Competitive Programming Club

2019

- Weekly meetings, practicing and learning algorithms and data structures used in competitive programming
- o Participation in the ICPC Programming Contest
- Intramural Ultimate Frisbee

2019

- Weekly ultimate frisbee games
- Solved a wide variety of competitive programming contest problems in Java and C++ (<a href="https://dmoj.ca/">https://dmoj.ca/</a>)

2017-Present

## **CERTIFICATIONS**

Aquatic Supervisor	June 2018
National Lifeguard	June 2018
Standard First Aid & CPR C	February 2019
Swim Instructor/First Aid Instructor /Lifesaving Instructor	September 2018