


# KAELAN MOFFETT-STEINKE

 [github.com/oasixer](https://github.com/oasixer)

 647-997-6743

 [ksmoffet@uwaterloo.ca](mailto:ksmoffet@uwaterloo.ca)

 [linkedin.com/kaelanms/](https://linkedin.com/kaelanms/)

## Work Experience

### CIBC

FULL STACK DEVELOPER

*Toronto*

*Sep-Dec 2019*

- Led the development of a webapp with users nationwide, using SvelteJS as frontend, Flask (Python) webserver backend with OracleDB SQL server
- Provided data visualiations by embedding Tableau dashboards into webapp in JS/SCSS/HTML
- Improved fraud detection capabilities by creating a text classifier using spaCy, NLTK (Python)
- Achieved "Above and Beyond" award for outstanding performance

*SvelteJS, Flask, Javascript, Python, Tableau, SQL, SASS/SCSS, SpaCy*

### North Inc. (Formerly Thalmic Labs)

COMPUTER VISION SOFTWARE DEVELOPER

*Waterloo*

*Jan-April 2019*

- Improved simulation accuracy by 76% by developing a performance critical DLL plugin that performs raytraces
- Created enhanced optical artifact simulator, using advanced OpenCV matrix calculations in C++
- Improved effectiveness of material property lookup table by developing n-dimensional interpolation algorithm
- Automated a laser test fixure by developing control software in Python & Arduino

*Python, C++, OpenCV, Arduino*

## Projects

### Slack Chatbot (AWS)

*UW Rocketry - Electrical Team*

- Developed scheduling application in Python, deployed to AWS Lambda
- Created DynamoDB database to store user and group schedules

*AWS, Amazon DynamoDB, Python, Bash*

### Realtime Rocket Data Visualiser

*UW Rocketry - Electrical Team*

- Developed data transfer protocol for realtime transmission of rocket sensor data
- Improved analysis capabilities by creating data visualizations with D3.js graphs encapsulated as Python Plotly Dash components

*D3.js, Plotly Dash, Python, Arduino*

### Smart Headlamp

*UTRAHacks*

- Created gesture controlled headlamp with deep learning facial recognition via Haar Cascades in OpenCV
- Implemented Leap Motion Control using C++
- Set up onboard Raspberry Pi and Arduino to control motors, sensors, and lights
- Achieved second place, and received Leap Motion award

*Python, OpenCV, C++, Arduino*

## Skills

### Frontend Webdev / UI

SvelteJS, ReactJS, HTML, SASS/SCSS, CSS, JQuery, QT, PyQT, Selenium, Latex

### Backend / Database

Flask, AWS, PostgreSQL, SQLAlchemy, SQL, OracleDB, Docker, Amazon DynamoDB

### Languages

Javascript, Python, C++, Arduino, Bash

### Data analysis / Visualization

D3.js, SpaCy, NLTK, Plotly Dash, Matplotlib, Pandas

## Education

BASc in Mechatronics Engineering  
University of Waterloo  
Expected Graduation May 2023

## Awards / Achievements

- CIBC Employee Above & Beyond Award
- UTRAHacks 2018 - 2nd place
- University Boulderling Series 2018 - 2nd place
- 2017 Youth Climbing Nationals - 7th place

## Interests

- Competitive rock climber for 12 years
- National Youth Circus alumni
- Machining, woodworking
- Rock climbing coach during high school