

# Colin Vandenhof

34 Elgin Street ◊ Waterloo, Ontario, Canada ◊ N2J 2R1  
(782) 234-0118 ◊ colinvandenhof@gmail.com

## EDUCATION

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### University of Waterloo

Master of Mathematics (Computer Science)

*January 2018 - present*

GPA: 4.00 / 4.00

- Recipient of the David R. Cheriton Graduate Scholarship, President's Graduate Scholarship, Mathematics Domestic Graduate Student Award, and Alexander Graham Bell Canada Graduate Scholarship.

### Dalhousie University

Special Undergraduate of Science (Computer Science)

*September 2016 - April 2017*

GPA: 4.00 / 4.00

- Recipient of MacKenzie Scholarship.

### McMaster University

Bachelor of Health Sciences (Honours)

*September 2012 - April 2016*

GPA: 3.94 / 4.00

- Recipient of the President's Award and Provost's Honour Roll Medal.

## TECHNICAL SKILLS

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### Programming Languages

Proficient:

Python, JavaScript, Bash

Previous experience:

C/C++, Java, R, MATLAB

### Software and Frameworks

Development environments:

JetBrains IDEs, Eclipse

Version control:

Git, SVN

Web technologies:

React, HTML/CSS, Flask, Node.js, PostgreSQL

## WORK EXPERIENCE

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### University of Waterloo, Waterloo, Ontario

*January 2018 - present*

*Teaching Assistant*

- Fall 2019, Winter 2019, Spring 2018 - CS 486/686: Introduction to Artificial Intelligence
- Winter 2019 - CS 480/680: Introduction to Machine Learning
- Winter 2018 - CS 136: Elementary Algorithm Design and Data Abstraction

Responsible for holding office hours, answering questions on course forums, proctoring, and marking.

### Element AI, Toronto, Ontario

*May 2019 - August 2019*

*Applied Research Intern*

Conducted research into uncertainty quantification, and the use of utility models for decision-making in production deep learning systems. Model development and experimentation in Python using PyTorch. Creation of interactive data visualization tools in JavaScript using D3.js.

### Blockcrushr Labs, Halifax, Nova Scotia

*September 2017 - December 2017*

*Software Developer*

Development of universal web application for charitable giving backed by the Ethereum blockchain. Front-end web development in React. Implemented user authentication using JWT. Integration with Node.js back-end.

### Atlantic Lottery Corporation, Halifax, Nova Scotia

*June 2017 - August 2017*

*Summer Student - Software Development*

Development of Amazon Alexa application with Node.js and deployment with AWS. Development of web scraper in Javascript and deployment of lottery results RESTful API with AWS. Integration of API with Ruby on Rails web application. Front-end web development in React.

### Dalhousie University, Halifax, Nova Scotia

*May 2017 - August 2017*

*Teaching Assistant*

- Spring 2017 - CSCI 3120: Operating Systems

Responsible for editing assignments, leading in-class activities, proctoring, and marking.

## PUBLICATIONS

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**A Hybrid Approach to Identifying Unknown Unknowns of Predictive Models.** Vandenhof, C. In Proceedings of the 7th AAAI Conference on Human Computation and Crowdsourcing.

**Contradict the Machine: a Hybrid Approach to Identifying Unknown Unknowns.** Vandenhof, C. & Law, E. In Proceedings of the 18th International Conference on Autonomous Agents and Multiagent Systems.

[colinvdh.com](http://colinvdh.com) ◊ [github.com/ColinVDH](https://github.com/ColinVDH)