

# Colin Howes

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## EDUCATION

### UNIVERSITY OF WATERLOO

MMATH COMPUTER SCIENCE -  
Co-OP  
Dec 2018 (expected) | Waterloo, ON  
GPA: 3.98 / 93%

### UNIVERSITY OF GUELPH

MSc NEUROSCIENCE AND APPLIED  
COGNITIVE SCIENCE  
Dec 2016 | Guelph, ON  
GPA: 3.98 / 94%

### COURSEWORK

Empirical Performance Evaluation - 91%  
Advanced Distributed Systems - 96%  
Artificial Intelligence - 89%  
Computer Networks - 96%  
Computer Security and Privacy - 96%  
Research Design and Statistics - 96%  
Operating Systems - 91%  
Algorithms - 89%  
Data Structures 94%

IP: In Progress

## SKILLS

### PROGRAMMING LANGUAGES

C • Java • C++ • Python • R

### TECHNOLOGIES AND TOOLS

Git • Linux • Android  
gRPC • Shell Scripting •  $\LaTeX$

### WEB TECHNOLOGIES

HTML • CSS • JavaScript  
AngularJS • MySQL/SQLite

## EXPERIENCE

### BLACKBERRY / QNX

CORE OS SOFTWARE DEVELOPMENT STUDENT  
Jan 2018 - Present | Kanata, ON  

- Current intern on the kernel development team

### PERCEPTION TEAM CORE MEMBER

WATONOMOUS - SAE AUTODRIVE CHALLENGE TEAM  
Sep 2017 - Present | Waterloo, ON  

- Developed and trained an image classifier based on a convolutional neural network capable of classifying traffic signs

### GRADUATE RESEARCH ASSISTANT

UNIVERSITY OF GUELPH - DEPARTMENT OF COMPUTER SCIENCE  
Dec 2015 - Dec 2016 | Guelph, ON  

- Developed a survey platform in collaboration with a team of public health researchers aimed at facilitating data collection from remote communities

### GRADUATE RESEARCH ASSISTANT

UNIVERSITY OF GUELPH - DEPARTMENT OF PSYCHOLOGY  
Sep 2014 - Dec 2016 | Guelph, ON  

- Led a research project investigating effects of exposure to testosterone on learning and social behaviour

### SEMINAR INSTRUCTOR

UNIVERSITY OF GUELPH  
Sep 2014 - Dec 2016 | Guelph, ON  

- Led a seminar on research methods and statistics for high-achieving upper year undergraduate students interested in graduate studies

## PROJECTS

### ANALYSIS OF TCP BBR FOR DATA CENTRES [GITHUB](#)

- Assessed the performance of TCP BBR as an alternative congestion control algorithm for data centres supporting latency critical distributed applications

### WATFS [GITHUB](#)

- Fault tolerant remote file system built on top of FUSE, using gRPC as a communication mechanism

### IMPROVED INITIATIVE [GITHUB](#) | [GOOGLE PLAY](#)

- Developed an Android app to facilitate gameplay management for tabletop roleplaying games like Dungeons and Dragons
- Over 1000 users and a 4.2 star rating on the Google Play Store