

Colin Howes

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EDUCATION

UNIVERSITY OF WATERLOO

MMATH COMPUTER SCIENCE -
Co-OP

Expected Dec 2018 | Waterloo, ON
GPA: 3.98 / 93%

UNIVERSITY OF GUELPH

MSC NEUROSCIENCE AND APPLIED
COGNITIVE SCIENCE

December 2016 | Guelph, ON
GPA: 3.98 / 94%

COURSEWORK

Artificial Intelligence - IP
Advanced Distributed Systems - IP
Empirical Performance Evaluation - IP
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

Java • C • Python • C++ • R

TECHNOLOGIES AND TOOLS

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

WEB TECHNOLOGIES

HTML • CSS • JavaScript
AngularJS • MySQL/SQLite

EXPERIENCE

PERCEPTION TEAM CORE MEMBER

WATONOMOUS - SAE AUTODRIVE CHALLENGE TEAM

Sept 2017 - Present | Waterloo, ON

- Researched and developed image classification algorithms that could be applied in real time to traffic sign recognition in an autonomous vehicle

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
- Designed a survey builder that enables non-technical researchers to create complex, targeted, and dynamic surveys

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
- Trained and mentored a large team of undergraduate students

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 CENTERS

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

WATFS GITHUB

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

DATA CENTER TCP REPLICATION GITHUB

- Replicated DCTCP performance experiments related to incast congestion and ECN parameter tuning using data center network topologies modeled in the Mininet network emulator

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