

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
Shell Scripting • \LaTeX

WEB TECHNOLOGIES

HTML • CSS • JavaScript
AngularJS • MySQL/SQLite

EXPERIENCE

CORE MEMBER - PERCEPTION TEAM

WATONOMOUS - SAE AUTODRIVE CHALLENGE TEAM

Sept 2017 - Dec 2017 | Waterloo, ON

- Design and implement computer vision algorithms to enable sign recognition in an autonomous vehicle
- Currently in the stage of evaluating frameworks and inter-process communication mechanisms

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 web application that enables non-technical researchers to create a database of questions and responses that could be combined into complex, targeted, and dynamic surveys

GRADUATE RESEARCH ASSISTANT

UNIVERSITY OF GUELPH - DEPARTMENT OF PSYCHOLOGY

Sep 2014 - Dec 2016 | Guelph, ON

- Led a two year research project investigating the effects of prenatal exposure to testosterone on learning and social behaviour
- Trained and mentored a large team of undergraduate students over the course of the project

TEACHING ASSISTANT

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

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

RELIABLE FILE TRANSFER [GITHUB](#)

- Designed a file transfer server with reliability mechanisms implemented in C and C++ over top of the Linux UDP socket interface

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