

# Greg d'Eon

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## Education

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### University of Waterloo

Sept 2017 – Present

Master's of Mathematics

Expected graduation: April 2019

### Dalhousie University

Sept 2012 – December 2016

Bachelor of Computer Engineering

*2014-2016*: Sexton Scholar with 4.26 GPA

*2012-2014*: Sexton Scholar with 4.30 GPA

## Work Experience

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### NewAE Technology

Jan 2017 – Aug 2017; May 2016 – Aug 2016

Software Engineer

- Developed open-source software for the ChipWhisperer platform using Python, C, and Verilog, adding helpful features to the software and greatly increasing the breadth of the existing firmware examples.
- Wrote and revised a set of tutorials for the ChipWhisperer software, bringing the documentation up to date and increasing the value of the hardware.
- Taught in-person training courses with up to 20 students at Black Hat USA security conference

### Dalhousie University

Sept 2015 – Dec 2015

Research Assistant with Dr. Guy Kember

- Created an analytical model for head impacts by working from existing published papers in acoustics.
- Implemented mathematical calculations and visualizations in Matlab and Mathematica, making calculations fast and efficient.

### Dalhousie University

Jan 2014 – Apr 2015; May 2014 – Aug 2014

Research Assistant with Dr. Jeff Dahn

- Created an embedded system (hardware, firmware, and PC software) to emulate commercial lab equipment, providing an inexpensive method of data collection.
- Communicated effectively with graduate students and supervisors to create software with all desired features implemented.
- Designed and built a battery testing system, including a Visual Basic application and a custom sheet metal enclosure, allowing faster and more efficient data collection.
- Created an academic poster about the work and gave a talk to a small audience, including graduate students and undergraduate assistants from multiple labs.

## Academic Experience

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### University of Waterloo

Sept 2017 – Present

Teaching/Instructional Support Assistant

- Led lab sessions with up to 40 students, held office hours, and marked assignments/tests
- ISA duties:
  - Jan - Apr 2018: Intro to Computer Programming 2 (CS106)
  - Sept - Dec 2017: Intro to Computer Programming 1 (CS105)

### Dalhousie University

Sept 2013 – December 2016

Teaching Assistant

- Led weekly two-hour tutorial sessions, teaching up to 90 students by demonstrating examples and helping individual students as needed
- Courses taught:
  - Sept - Dec 2016: C++ Programming (ENGM3282)
  - Sept - Dec 2015: C Programming (ENGM1081)
- Graded up to 120 assignments or 100 tests each week for first-, second-, and third-year math courses, providing accurate marks and helpful comments to students.
- Courses graded:
  - May - Aug 2016: Vector Calculus (ENGM2101)
  - Sept - Dec 2015: C++ Programming (ENGM3282)
  - Sept - Dec 2015: C Programming (ENGM1081)
  - Jan - Apr 2015: Differential Equations (ENGM2022)
  - Sept - Dec 2014: Vector Calculus (ENGM2101)
  - Jan - Apr 2014: Linear Algebra (ENGM1041)
  - Sept - Dec 2013: C Programming (ENGM1081)

### Dalhousie University

Sept 2013 – May 2016

Private Tutor

- Tutored first- and second-year students in a variety of groups, ranging from individual tutoring to lecture-style discussions with 30 students
- Courses tutored include engineering physics, chemistry, design, and mathematics, with a heavy emphasis on Vector Calculus and Differential Equations

## Awards

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### Scholarships

- 2017 NSERC CGS-M – \$17500
- 2017 Waterloo President's Graduate Scholarship – \$10000
- 2016 Dalhousie In-Course Scholarship – \$2000
- 2014 John G. Bruce Scholarship – \$10000 (renewed 2015)
- 2014 Walter P. Copp Memorial Prize – \$400
- 2012 Dalhousie Entrance Scholarship – \$5000 (renewed 2013 – 2015)

### Distinctions

- 2017 Dalhousie University Medal – Top Academic Standing, Computer Engineering
- 2017 IEEE Atlantic Section Medal – Top Academic Standing, Computer Engineering
- 2014 Kenneth Marginson Award – Top Academic Standing, Class of Engineering
- 2014 Bob Walter Award – Student Vote, Class of Engineering
- 2012 Governor General's Award – Top Academic Standing, Prince Andrew High

## Academic Papers

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- G. d'Eon** and C. O'Flynn. Power Analysis and Fault Attacks against Secure CAN: How Safe Are Your Keys? To appear in *Transportation Cybersecurity and Privacy: An SAE International Journal*, 2018.
- K. J. Nelson, **G. L. d'Eon**, A. T. B. Wright, L. Ma, J. Xia, and J. R. Dahn. Studies of the Effect of High Voltage on the Impedance and Cycling Performance of  $\text{Li}[\text{Ni}_{0.4}\text{Mn}_{0.4}\text{Co}_{0.2}]\text{O}_2/\text{Graphite}$  Lithium-Ion Pouch Cells. *Journal of the Electrochemical Society*, 2015, 162, A1046-A1054.

## Extra-curricular Involvement

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### Formula SAE

Sept 2013 – May 2017

Dalhousie University

- May 2016 – May 2017: Team captain
  - Led 50+ students in a hierarchical team structure
  - Responsible as the face of the team, directing meetings with system leads, working on recruitment and sponsorships, and upkeeping the team's social media
  - Contributed heavily to multiple areas of the team, providing technical help to the suspension system and temporarily leading the powertrain system
- Sept 2015 – April 2016: Electrical system lead
  - Led a group of 10 engineering students, managing tasks on tight deadlines
  - Used professional engineering software to design and build wiring systems for a new engine, including work on an electronic shifter
- Sept 2014 – August 2015: Electrical system member
- Sept 2013 – August 2014: Aerodynamics system member

## Hobbies and Community Involvement

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### Running

- Avid middle- and long-distance runner (2004 – present)
- 2016 Natal Day 2 Miler: 5th place overall (11:28)
- 2015 Valley Harvest Half Marathon: 9th place overall (1:23:15)
- 2012 Nova Scotia Track & Field Provincials: 1500m bronze medalist

### Music

- Drummer and singer for band *Sunday Run* (2012 – 2017)
- Played at several venues annually, including fundraisers for local elementary school, soup kitchen, and charities
- Proficient in music theory and arranging

### Volunteer Work

- Volunteered as summer camp leader at Stevens Road Church (2009 – 2013)
- Led up to 50 children aged 3-12 in arts/crafts and sports at full day camp