

# Daniel Rasmussen

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## Education

- 2010–present **PhD, Computer Science (Theoretical Neuroscience)**, *University of Waterloo*, Waterloo, ON.
- 2008–2010 **MMath, Computer Science (Theoretical Neuroscience)**, *University of Waterloo*, Waterloo, ON.
- 2004–2008 **BA, Computer Science and Philosophy**, *Mount Allison University*, Sackville, NB.

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## Journal Articles

- D. Rasmussen and C. Eliasmith. Modeling brain function: Current developments and future prospects. *JAMA Neurology*, 70(10):1325–1329, 2013
- C. Eliasmith, T. C. Stewart, X. Choo, T. Bekolay, T. DeWolf, C. Tang, and D. Rasmussen. A large-scale model of the functioning brain. *Science*, 338(6111):1202–1205, 2012
- D. Rasmussen and C. Eliasmith. A neural model of rule generation in inductive reasoning. *Topics in Cognitive Science*, 3(1):140–153, 2011

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## Book Chapters

- C. Eliasmith, D. Rasmussen, and T. C. Stewart. Biological cognition: Syntax. In C. Eliasmith, editor, *How to build a brain: A neural architecture for biological cognition*, chapter 4. Oxford University Press, 2013

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## Conference Proceedings

- D. Rasmussen and C. Eliasmith. A neural reinforcement learning model for tasks with unknown time delays. In M. Knauff, M. Pauen, N. Sebanz, and I. Wachsmuth, editors, *Proceedings of the 35th Annual Meeting of the Cognitive Science Society*, pages 3257–3262, Austin, 2013. Cognitive Science Society
- D. Rasmussen and C. Eliasmith. A Neural Model of Rule Generation in Inductive Reasoning. In R. Cattrambone and S. Ohlsson, editors, *Proceedings of the 32nd Annual Conference of the Cognitive Science Society*, pages 61–66, Austin, 2010. Cognitive Science Society

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## Invited Commentaries

D. Rasmussen and C. Eliasmith. God, the devil, and details: Fleshing out the predictive processing framework (commentary on Clark). *Behavioral and Brain Sciences*, 36:223–224, 2013

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## Theses

MMath A neural modelling approach to investigating general intelligence  
supervisor Dr. Chris Eliasmith

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## Awards and Grants

- 2011 **Young Researchers' Computational Neuroscience Award**, *Bernstein Association for Computational Neuroscience*.
- 2011–2014 **Alexander Graham Bell Canadian Graduate Scholarship**, *Natural Sciences and Engineering Research Council of Canada*.
- 2010 **Best Paper Award (Computational Modelling) CogSci2010**, *Cognitive Science Society*.
- 2009–2011 **Ontario Graduate Scholarship**, *Ontario Ministry of Training, Colleges, and Universities*.
- 2008–2014 **President's Graduate Scholarship**, *University of Waterloo*.
- 2008–2010 **David R. Cheriton Graduate Scholarship**, *University of Waterloo*.
- 2008–2009 **NSERC Postgraduate Scholarship**, *Natural Sciences and Engineering Research Council of Canada*.
- 2008 **David Gilchrist Chalmers Memorial Prize**, *Mount Allison University*.
- 2007–2008 **NSERC Undergraduate Student Research Award**, *Natural Sciences and Engineering Research Council of Canada*.
- 2004–2008 **Mount Allison Scholarship**, *Mount Allison University*.
- 2004–2008 **Ruggles-Gates Scholarship**, *Mount Allison University*.

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## Invited Talks

- 2013 **Adaptive behaviour via hierarchical reinforcement learning in a biologically plausible neural architecture**, *CIFAR NCAP Summer School*.
- 2013 **Introduction to the NEF/Nengo**, *Telluride Neuromorphic Cognition Engineering Workshop*.
- 2013 **Large-scale functional neural modelling**, *DARPA Large Scale Applications Using Cortical Processing Models Workshop*.
- 2012 **Modelling the brain: From neurons to behaviour**, *Mount Allison University*.
- 2011 **Spiking neural modelling applied to intelligence tests and aging**, *Bernstein Center for Computational Neuroscience - Berlin*.

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## Teaching Experience

- 2012 **Sessional Instructor**, *University of Waterloo*.  
Teaching an undergraduate introductory computer science course. Responsible for creating and delivering lectures to a class of 100 students, meeting with students during office hours, and designing assignments and exams.
- 2011–2013 **Certificate in University Teaching**, *University of Waterloo*.  
Advanced certificate program in university teaching, based on in-class evaluations, workshops, and theoretical research.
- 2010–2011 **Fundamentals of University Teaching**, *University of Waterloo*.  
Certificate program involving workshops and hands-on training to assist in development of university teaching skills
- 2009–2011 **Instructional Apprenticeship**, *University of Waterloo*.  
Running labs, tutorials, and help sessions for various Computer Science courses
- 2007–2008 **Teaching Internship Program**, *Mount Allison University*.  
Assisting in teaching introductory Computer Science classes, along with instructional workshops and faculty mentorship

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## Other activities

- 2013 **Telluride Neuromorphic Cognition Engineering Workshop**, *Telluride, USA*.  
Three week workshop, developing expertise in the combination of neuromorphic hardware/robotics and neural modelling
- 2010 **University of Waterloo Mentor**, *University of Waterloo*.  
Serving as mentor to incoming graduate students, helping with courses/library use/research skills
- 2007–2008 **Student Administrative Council Academic Support**, *Mount Allison University*.  
Answering questions of incoming students concerning computer science