

# Lucas Lehnert

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## Languages

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- English (fluent)
- German (native)
- French (beginner)

## Education

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<b>PhD in Computer Science</b> <i>Brown University, Providence, Rhode Island, United States</i>	<b>Sep. 2016 – May 2021</b> (expected)
<b>Master of Science, Computer Science</b> <i>McGill University, Montreal, Quebec, Canada</i>	<b>Jan. 2015 – Aug. 2016</b>
<b>Bachelor of Science, First Class Honours in Computer Science</b> <i>McGill University, Montreal, Quebec, Canada</i>	<b>Sep. 2010 – Dec. 2014</b>

## Research Experience

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<b>PhD Research Assistant – Supervisor: Prof. Michael Littman</b> <i>Brown University, Providence, Rhode Island, United States</i> Research in Reinforcement Learning and Machine Learning	<b>Sep. 2016 – present</b>
<b>Master's Student – Supervisor: Prof. Doina Precup</b> <i>McGill University, Montreal, Quebec, Canada</i> Thesis Research in Reinforcement Learning	<b>Jan. 2015 – Aug. 2016</b>
<b>Undergraduate Research Assistant – Supervisor: Prof. Kaleem Siddiqi</b> <i>McGill University, Montreal, Quebec, Canada</i> Image analysis of tagged heart MRI and building a computer simulation of a canine heartbeat.	<b>May 2014 – Aug. 2014</b>
<b>Undergraduate Research Assistant – Supervisor: Prof. Doina Precup</b> <i>McGill University, Montreal, Quebec, Canada</i> Development of 'curious' exploration algorithms (part-time during the Fall and Winter semesters, full-time during the Summer semesters)	<b>May 2011 – Aug. 2013</b>

## Teaching Experience

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<b>Teaching Assistant for Software Development Comp 303 – Instructor: Prof. Martin Robillard</b> <i>McGill University, Montreal, Quebec, Canada</i> Grading exams, holding office hours, and teaching a lecture.	<b>Sep. 2014 – Dec. 2014</b>
<b>Teaching Assistant for Software Development Comp 303 – Instructor: Prof. Martin Robillard</b> <i>McGill University, Montreal, Quebec, Canada</i> Grading exams and course projects and holding office hours.	<b>Sep. 2013 – Dec. 2013</b>

## Professional Experience

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<b>Intern as a Java Programmer</b> <i>SAP Labs Canada, Montreal, Quebec, Canada</i> Performance evaluation of 3DES and RSA encryption algorithms on credit card numbers, as part of a two-week High School project.	<b>Oct. 2008</b>
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## Technical Skills and Interests

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- Substantial knowledge and strong interests in **Machine Learning and Reinforcement Learning**.
- E experience through research with **Statistics, Numerical Estimation, Image Analysis, and Signal Processing**.
- Experience in effectively presenting research results through papers, presentations, and poster presentations.
- Experience in mentoring and advising students with course projects and managing project groups as a teaching assistant.

## Awards

	Location of Tenure	
<b>Entering PhD Fellowship in Computer Science</b> Institutional award for PhD Students	Brown University	<b>Sep. 2016 – May 2017</b>
<b>NSERC CGS M</b> National Master's Fellowship	McGill University	<b>Jan. 2015 – Dec. 2015</b>
<b>Computer Science Top-up Award</b> Institutional award for Master's students	McGill University	<b>Jan. 2015 – Apr. 2015</b>
<b>Runner-up at Computer Science Undergraduate Research Symposium</b>	McGill University	<b>Aug. 2014</b>
<b>NSERC USRA</b> National award for undergraduate research	McGill University	<b>May 2014 – Aug. 2014</b>
<b>1<sup>st</sup> Place at Computer Science Undergraduate Research Symposium</b>	McGill University	<b>Aug. 2013</b>
<b>NSERC USRA</b> National award for undergraduate research	McGill University	<b>May 2013 – Aug. 2013</b>
<b>NSERC USRA</b> National award for undergraduate research	McGill University	<b>May 2012 – Aug. 2012</b>
<b>1<sup>st</sup> Place at Computer Science Undergraduate Research Symposium</b>	McGill University	<b>Aug. 2011</b>

## Publications and Presentations

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1. Lucas Lehnert and Doina Precup (2016) Using Policy Gradients to Account for Changes in Behavior Policies under Off-policy Control. The 13th European Workshop on Reinforcement Learning (EWRL)
2. L. Lehnert, D. Precup (2015) Policy Gradient Methods for Off-policy Control, arXiv:1512.04105 [cs.AI], <http://arxiv.org/abs/1512.04105>.
3. L. Lehnert, D. Precup (2014) Building a Curious Robot for Mapping. Autonomously Learning Robots workshop, NIPS 2014 (international conference), six-page paper, accepted October 29, 2014.
4. Arthur Mensch, Emmanuel Piuze, Lucas Lehnert, Adrianus J. Bakermans, Jon Sparring, Gustav J. Strijkers, Kaleem Siddiqi (2015) Connection Forms for Beating the Heart. Statistical Atlases and Computational Models of the Heart - Imaging and Modelling Challenges. 8896: 83-92. Springer International Publishing, accepted October 9, 2014.
5. Arthur Mensch, Emmanuel Piuze, Lucas Lehnert, Adrianus Bakermans, Jon Sparring, Gustav Strijkers, Kaleem Siddiqi (2014) Connection Forms for Beating the Heart, STACOM 2014 workshop held at MICCAI 2014 (international conference), poster presentation (Undergraduate work).
6. Lucas Lehnert, Kaleem Siddiqi, (2014) Modelling the Heart from MRI, Faculty of Science Undergraduate Symposium, McGill (institutional symposium), poster presentation (Undergraduate work).
7. Lucas Lehnert, Doina Precup, (2013) Curious Robot Exploration, Faculty of Science Undergraduate Symposium, McGill (institutional symposium), poster presentation (Undergraduate work).
8. Lucas Lehnert, Peter Davoust, Doina Precup, (2011) Building a Curious Robot, Faculty of Science Undergraduate Symposium, McGill (institutional symposium), poster presentation (Undergraduate work).

## Other

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- Organization and hosting of guest research talks at the Reasoning and Learning Lab, McGill University.
- Participation at the 2014 NSERC CREATE-MIA Summer School Hackathon to build an augmented reality system.
- Volunteering for community events at my former high school such as organizing Skat-game tournaments and helping at the annual Christmas sale.

## References

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### Doina Precup

Professor, School of Computer Science, McGill University, e-mail: dprecup@cs.mcgill.ca

### Michael Rabbat

Associate Professor, Department of Electrical and Computer Engineering, McGill University, email: michael.rabbat@mcgill.ca

### Michael Littman

Professor of Computer Science, Brown University, e-mail: mlittman@cs.brown.edu