

Rowan T. McAllister

CONTACT INFORMATION University of Cambridge, United Kingdom
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EDUCATION *Ph.D.* in machine learning **Sept 2012 – May 2017**
University of Cambridge, United Kingdom
Thesis: Bayesian Learning for Data-Efficient Control

M. Phil in robotics **Sept 2010 – Aug 2012**
Australian Centre for Field Robotics, University of Sydney, Australia
Thesis: Motion Planning with Stochastic Control over Unstructured Terrain

BE / BSci (Honours Class I) **Mar 2004 – Nov 2009**
University of Sydney, Australia
Majors: mechatronic-space engineering, mathematics, computer science, physics
Thesis: Autonomous Reconfiguration Planning in Modular Robots

PUBLICATIONS

- **McAllister, R.**, Gal, Y., Kendall, A., van der Wilk, M., Shah, A., Cipolla, R., Weller, A., “Concrete Problems for Autonomous Vehicle Safety: Advantages of Bayesian Deep Learning”, International Joint Conference on Artificial Intelligence (IJCAI), 2017
- **McAllister, R.**, “Bayesian Learning for Data-Efficient Control”, PhD thesis, University of Cambridge, 2017
- **McAllister, R.**, Rasmussen, C. , “Data-Efficient Reinforcement Learning in Continuous State-Action Gaussian-POMDPs”, Neural Information Processing Systems (NIPS), 2017
- Gal, Y., **McAllister, R.**, Rasmussen, C., “Improving PILCO with Bayesian Neural Network Dynamics Models”, Data-Efficient Machine Learning workshop, ICML, 2016
- **McAllister, R.**, van der Wilk, M., Rasmussen, C. , “Data-Efficient Policy Search using PILCO and Directed-Exploration”, Data-Efficient Machine Learning workshop, ICML, 2016
- Peynot, T., Lui, A., **McAllister, R.**, Fitch, R., Sukkariéh, S., “Learned Stochastic Mobility Prediction for Planning with Control Uncertainty on Unstructured Terrain”, Journal of Field Robotics (JFR), 2014
- **McAllister, R.**, Peynot, T., Fitch, R., Sukkariéh, S., “Motion Planning and Stochastic Control with Experimental Validation on a Planetary Rover”, IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2012
- **McAllister, R.**, “Motion Planning and Stochastic Control with Experimental Validation on a Planetary Rover”, Masters thesis, University of Sydney, 2012
- Peynot, T., Fitch, R., **McAllister, R.**, Alempijevic, A., “Resilient Navigation through Online Probabilistic Modality Reconfiguration”, International Conference on Intelligent Autonomous Systems (ICRA), 2012
- Peynot, T., Fitch, R., **McAllister, R.**, Alempijevic, A., “Autonomous Reconfiguration of a Multi-Modal Mobile Robot”, IEEE International Conference on Robotics and Automation (ICRA) workshop, 2011
- Fitch, R., **McAllister, R.**, “Hierarchical Planning for Self-Reconfiguring Robots Using Module Kinematics”, International Symposium on Distributed Autonomous Robotics Systems (DARS), 2010
- **McAllister, R.**, “Autonomous Reconfiguration Planning in Modular Robots”, honours thesis, University of Sydney, 2009

EMPLOYMENT **University of California, Berkeley**, United States **Nov 2017 – present**
Postdoctoral researcher
Working on deep model-based reinforcement learning.

Uber Advanced Technologies Group, Pittsburgh, United States **Oct 2015 – Dec 2015**
Machine Learning Specialist
I worked on Uber’s driverless car software as an intern.

- Graduates Prize for Senior Aeronautical Engineering from the University of Sydney (awarded annually to the top performing student), 2006

SPORT

Community clubs, Sydney

Soccer, regular member **2009 – 2012**

Christ Church Grammar School, Perth and University of Sydney

Field Hockey, regular member **1995 – 2007**

Western Australia Diving Association, Perth and University of Sydney

Springboard Diving **1998 – 2006**

1st place at the University of Sydney intercollegiate diving competitions (2004-2006). Participated in the Pan Pacific games (international level) held in Sydney, ranked 9th of 14 representing Western Australia (2000)

Scuba Schools International, Perth

Scuba Diving, achieved open water diving certification, regular diver since **2004 – present**

Hang Gliding Federation of Australia

Hang Gliding, achieved the Ground Tow Endorsement **2003**

CULTURAL

- Participated in the 2011 RoboCup@Home international competition in Istanbul, coding a motion planner for the University of Technology of Sydney's entry, we received 4th place of 19
- Volunteering with the School Tutoring Program, University of Sydney, tutoring students of low socioeconomic rated schools in high school maths and physics (2005, Sept 2010 - 2012)
- Volunteering at Newtown Mission, Sydney, providing meals for the underprivileged (Apr 2007 - Dec 2010)
- 3 month solo backpacking venture through Latin America (2010)
- 6 month exchange to Austin, USA as part of undergraduate degree (Jan - Jun 2009)
- Participated in the National Student Leadership Forum in Canberra, a 4 day camp based on leadership and political discussions (2005)
- 6 month cultural exchange in France with a host family through NACEL exchange program (2003)
- Participated in the Australian International Model Solar Car Challenge race in Adelaide, receiving 1st place of 32 state finalists and set a new world record (2001)

LANGUAGES

English: native language

French: speak, read and write with moderate competence

Spanish: beginner