

Rowan T. McAllister

CONTACT INFORMATION Australian Centre for Field Robotics, University of Sydney, Australia
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EDUCATION *M. Phil* **Sept 2010 – Jul 2012**
Australian Centre for Field Robotics, University of Sydney, Australia
Thesis: Motion Planning with Stochastic Control over Unstructured Terrain (Mechatronics)

BE / BSci (Honours Class I) **Mar 2004 – Nov 2009**
University of Sydney, Australia
Majors: Mechatronic-Space Engineering, Mathematics, Computer Science, Physics
Honours Thesis: Autonomous Reconfiguration Planning in Modular Robots (Mechatronics)

HONOURS AND AWARDS

- Alumni Scholarship, University of Sydney, awarded to 3 postgraduate students per year, 2011
- University of Sydney Postgraduate Award, a postgraduate research scholarship, 2011-2014
- Reserve candidate for the 2011 Fulbright Postgraduate Scholarship in Technology and Communication sponsored by Telstra, 2010
- Rio Tinto Centre for Mine Automation in Field Robotics Award from the Australian Centre for Field Robotics, a postgraduate research scholarship, 2010
- Academic Merit Prize from the University of Sydney, awarded to the top 300 graduating students based on academic performance, 2009
- Named in Dean's List of Excellence in Academic Performance each year enrolled at University of Sydney (meaning on track for Honours Class I), 2004 - 2009
- Graduates Prize for Senior Aeronautical Engineering from the University of Sydney (awarded annually to the top performing student), 2006
- A C Christensen Endowment scholarship from St Andrew's College, University of Sydney, an undergraduate scholarship based on academic performance, 2006
- College Academic Merit Scholarship from St Andrew's College, University of Sydney, an undergraduate scholarship based on academic performance, 2005

PUBLICATIONS

- **McAllister, R.**, Peynot, T., Fitch, R., "Motion Planning and Stochastic Control with Experimental Validation on a Planetary Rover", IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2012 (accepted 2 July 2012)
- Peynot, T., Fitch, R., **McAllister, R.**, Alempijevic, A., "Resilient Navigation through Online Probabilistic Modality Reconfiguration", International Conference on Intelligent Autonomous Systems, 2012 (accepted 3 April 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 **Google**, Sydney, Australia **Mar 2012 – Jun 2012**
Software Engineer Intern
Accepted into competitive cadetship of 2,500 applicants for 25 positions

Australian Centre for Field Robotics, Sydney, Australia **Dec 2009 – Mar 2010**
Research Intern
Developed an algorithm which plans reconfigurations for Self Reconfiguring Modular Robotics (a continuation of my honours thesis)

National Australia Bank, Sydney, Australia

Computer Programmer **Dec 2007 – Aug 2008**

Using a new method of constructing yield curves from interest rate models, have programmed a trading tool to value swaps. This began as a competitive cadetship of 80 applicants for 4 positions, and thereafter I continued as a casual employee

Accelerated Centre for Education, Sydney, Australia

Tutor, held advanced classes of English and Maths for school students in grades 5 - 10 **2007**

Thompson Design, Jandakot Airport, Fremantle, Australia

Engineer's Assistant **Jan 2007 – Feb 2007**

Worked alongside aeronautical engineers inspecting aircraft, repairing damages, designing modifications and writing up engineering orders to certify technician work as work experience

St Andrew's College, University of Sydney, Australia

Tutor, taught MATLAB to university students **Mar 2006 – Jun 2006**

Head Waiter, organised and oversaw college formal dinners **Mar 2004 – Nov 2006**

SBF shipyards, Fremantle, Australia

Tradesman's Assistant **Jul 2003 – Dec 2003**

Worked in areas of Aluminium boat construction such as plate bending, MIG welding, cabin interior

COMPUTING
SKILLS

Programming Languages: Java, C, C++, Python, MATLAB, VB, L^AT_EX
Operating Systems: Ubuntu, Windows

SPORT

Community clubs, Sydney

Soccer, regular member **2009 – present**

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 - present)
- 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