

# Curriculum Vitae

## Personal Information

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Date of Birth: 31. August 1981  
Place of Birth: Perpignan, France  
Nationality: German

## Education

- 5/2008 Doctor of Philosophy in Robotics from Robotics Institute, Carnegie Mellon University, Pittsburgh, Pennsylvania, USA. Dissertation: "Finding and Transferring Policies Using Stored Behaviors".
- 5/2006 Master of Science in Robotics from Robotics Institute, Carnegie Mellon University.
- 8/2003 Master of Science in Computer Science from McGill University, Montreal, Canada. Thesis: "Automated Discovery of Options in Reinforcement Learning". Conferred 2/2004.
- 6/2002 Bachelor of Science with First Class Honors from McGill University. CGPA: 3.66
- 6/1999 High School Diploma with High Honors from Saint Johnsbury Academy, Vermont, USA  
Officially recognized as German Abitur with a 1.2 grade (1.0 best - 4.0 worst)
- 8/1997–5/1999 Saint Johnsbury Academy (11th-12th grade)
- 8/1991–7/1997 Suitbertus Gymnasium Düsseldorf-Kaiserswerth, Germany (5th -10th grade)
- 8/1987–7/1991 Primary school in Düsseldorf-Wittlaer, Germany

## Work experience

- 12/2015– Staff Software Engineer, Google Zurich, Switzerland.
- 12/2011–10/2015 Senior Software Engineer, Google Zurich, Switzerland.  
Tech lead for a large scale data processing system based on a SQL dialect.
- 6/2008–11/2011 Software Engineer, Google Zurich, Switzerland.
- 5/2004-8/2004 Internship as software programmer at BMW CarIT. Researched and implemented a natural language speech recognition parser and integrated it into an existing user interface system.  
(<http://www.bmw-carit.de>)
- 8/2003-12/2003 Member of the Red Team, Carnegie Mellon's entry to DARPA's "Grand Challenge", an autonomous car racing competition. Worked on electrical power architecture draft, oversaw drive-by-wire implementation including custom electronics and software implementation. On- and off-board networking.  
(<http://www.redteamracing.org> and <http://archive.darpa.mil/grandchallenge04/>)
- 9/2001–9/2003 Lab administrator for the Reasoning and Learning Laboratory at McGill University

- 10/1999–9/2003 Member of the McGill Science Computer Taskforce (student-run volunteer organization administering the campus-wide Faculty of Science undergraduate computer labs at McGill University, Montreal, Canada) (<http://taskforce.sus.mcgill.ca>)
- 6/2001–7/2001 Internship as programmer at ismap.com (now defunct) (Marseille, France)
- 5/2000–7/2000 Internship as system administrator at ihrpreis.de (now defunct) (Düsseldorf, Germany)
- 1997–1999 Network and web page administrator at Saint Johnsbury Academy (Saint Johnsbury, Vermont, USA)

### Research Experience

- 3/2007–5/2007 Guest researcher with Prof. Rüdiger Dillman at the University of Karlsruhe, Germany Working on learning by example, and visual surveying for the ARMA III humanoid robot. (<http://his.anthropomatik.kit.edu/>)
- 9/2003–5/2008 Working with Prof. Christopher Atkeson at the Robotics Institute, Carnegie Mellon University. Working on transfer learning in continuous domains.
- 9/2001–8/2003 Research Assistant working with Prof. Doina Precup in the School of Computer Science, McGill University. Working on automated discovery of options in Reinforcement Learning
- 1/2001–4/2001 Research Assistant in the Laboratory for Natural and Simulated Cognition at McGill University. Implemented a Java Applet comparing and contrasting Back-propagation Neural Networks and Cascade Correlation Neural Networks (<http://www.psych.mcgill.ca/labs/lpsc/html/Lab-Home.html>)
- 1/2001–4/2001 Honors Project (supervisor: Prof. Doina Precup): "Learning Options in Reinforcement Learning" at McGill University

### Teaching Experience

- 6/2008 – "Life of a Dollar", part of Google internal orientation program (several times per year)
- 9/2005–12/2005 Teaching Assistant for 16-862, Mobile Robot Programming
- 1/2000–4/2000 Marker for 189-133, an introductory linear algebra course

### Awards and Honors

- 10/2003 Most Valued Engineer of the week for Red Team
- 11/2002 Honorable Mention at the ACM Regional Contest, East Central North America Region
- 11/2001 Honorable Mention at the ACM Regional Contest, East Central North America Region
- since 2001 Member of the Golden Key International Honour Society
- 2001 Emily Ross Crawford Scholarship and James McGill Award at McGill University
- 1999 Mathematics Award, Science Award and Faculty Service Price at St. Johnsbury Academy
- 1999 AP Scholar with Distinction
- since 1999 Member of the National Honour Society, USA
- since 1994 Member of Mensa Germany

## Publications

- [1] R. Buessow, M. Stolle, B. Vlasyuk, and O. Bachmann. Performing pre-aggregation and re-aggregation using the same query language, July 5 2012. US Patent App. 13/388,487. URL: <https://www.google.com/patents/US20120173519>.
- [2] Matt Zucker, Nathan Ratliff, Martin Stolle, Joel Chestnutt, J Andrew Bagnell, Christopher G Atkeson, and James Kuffner. Optimization and learning for rough terrain legged locomotion. *Int. J. Rob. Res.*, 30(2):175–191, 2011. doi:10.1177/0278364910392608.
- [3] Martin Stolle and Christopher Atkeson. Finding and transferring policies using stored behaviors. *Auton. Robots*, 29(2):169–200, 2010. URL: [http://martin.stolle.name/all\\_abstracts.shtml#1825445](http://martin.stolle.name/all_abstracts.shtml#1825445), doi:10.1007/s10514-010-9191-2.
- [4] Martin Stolle. *Finding and Transferring Policies Using Stored Behaviors*. PhD thesis, Robotics Institute, Carnegie Mellon University, Pittsburgh, PA, May 2008. URL: [https://www.ri.cmu.edu/publication\\_view.html?pub\\_id=6098&menu\\_code=0307](https://www.ri.cmu.edu/publication_view.html?pub_id=6098&menu_code=0307).
- [5] Martin Stolle and Christopher Atkeson. Transfer of policies based on trajectory libraries. In *Proceedings of the International Conference on Intelligent Robots and Systems (IROS 2007)*, 2007. URL: <http://martin.stolle.name/pubs/stolle2007transfer.pdf>, doi:10.1109/IROS.2007.4399364.
- [6] Martin Stolle and Christopher G. Atkeson. Knowledge transfer using local features. In *Proceedings of the IEEE Symposium on Approximate Dynamic Programming and Reinforcement Learning (ADPRL 2007)*, 2007. URL: <http://martin.stolle.name/pubs/stolle2007knowledge.pdf>, doi:10.1109/ADPRL.2007.368165.
- [7] Martin Stolle and Christopher G. Atkeson. Policies based on trajectory libraries. In *Proceedings of the International Conference on Robotics and Automation (ICRA 2006)*, 2006. URL: <http://martin.stolle.name/pubs/stolle2006policies.pdf>, doi:10.1109/ROBOT.2006.1642212.
- [8] Martin Stolle. Automated discovery of options in reinforcement learning. Master’s thesis, McGill University, February 2004. URL: <http://martin.stolle.name/pubs/stolle2004thesis.pdf>.
- [9] Martin Stolle and Doina Precup. Learning options in reinforcement learning. *Lecture Notes in Computer Science*, 2371:212–223, 2002. URL: <http://martin.stolle.name/pubs/stolle2002learning.pdf>.
- [10] Francois Rivest, Martin Stolle, and Thomas Shulz. LNSC cascade-correlation simulator applet. WWW, 2001. URL: [http://www.psych.mcgill.ca/perpg/fac/shultz/cdp/lns\\_c\\_applet.htm](http://www.psych.mcgill.ca/perpg/fac/shultz/cdp/lns_c_applet.htm).

## Skills

Programming Languages    Java, C++, C, Turbo Pascal, Objective Pascal (Delphi), M68k Assembler, Scheme, Prolog, Basic, Logo, Perl, VBScript, JScript, Bash Scripts, HTML, Javascript and CSS

Operating Systems        Windows (3.1, 95, 98, NT4 Workstation, NT4 Server, 2000 Professional, 2000 Server, XP Home Edition and XP Professional), Linux (Debian, Red Hat, SuSE and Mandrake), SunOS (Solaris 7 and Solaris 8) and MacOS.

## Languages

German: mother tongue  
English: excellent in reading, speaking and writing  
French: very good in reading, speaking and writing

## Miscellaneous

2002                        Captain of the 2002 McGill ACM Contest Team

2002	Associate Chair of the McGill Science Computer Taskforce
2000	Driver's license
1999	Motorship Operator's license
1997	Successful participation in the Federal German Computer Programming Contest
1996–1997	Founder and first publisher of "Halbwüchsig" (German Junior Mensa Newsletter)
1996	Successful participation in the Federal German Computer Programming Contest

**Interests**            Photography, Piano (10 years), Sailing, English and German literature

Zurich, Switzerland, January 5, 2016