

## Luke Maurits

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CONTACT INFORMATION	School of Psychology The University of Adelaide Adelaide 5000 South Australia	<i>E-mail:</i> luke@maurits.id.au <i>WWW:</i> www.luke.maurits.id.au
CITIZENSHIP	Australian (birth), UK (descent), current passports held for both citizenships	
RESEARCH INTERESTS	Computational and Bayesian modelling of cognitive processes, including categorisation, language acquisition and latent structure extraction.	
EDUCATION	<b>The University of Adelaide</b> , Adelaide, South Australia  Ph.D., (expected graduation date March 2011) <ul style="list-style-type: none"><li>• Discipline: Psychology</li><li>• Supervisors: Dr. Daniel Navarro, Dr. Amy Perfors</li><li>• Area of study: Bayesian modelling of language acquisition, with emphasis on reflections of statistical structure of the physical world in linguistic structure</li></ul> B. Ma. & Comp. Sc. (Hons), December 2006 <ul style="list-style-type: none"><li>• Discipline: Pure Mathematics</li><li>• Supervisor: Dr. Robert Clarke</li><li>• Thesis Title: <b>Public Key Cryptography Using Discrete Logarithms in Finite Fields</b></li><li>• Areas of study: algebraic topology, finite and projective geometry, Galois theory, information theory, Lie algebras, measure theory and integration, number theory</li></ul> B. Ma. & Comp. Sc., December 2005 <ul style="list-style-type: none"><li>• Majors: Applied Mathematics, Pure Mathematics</li><li>• Other areas of study: Statistics, Theoretical Physics</li></ul>	
AWARDS	<b>Golden Key International Honour Society</b> , <ul style="list-style-type: none"><li>• Accepted offer of membership after attaining first year undergraduate exam results in top 10% of country, 2003.</li></ul> <b>Australian Bureau of Statistics</b> , <ul style="list-style-type: none"><li>• Awarded one of two \$4000 scholarships in South Australia for second year undergraduate study of statistics, awarded on basis of performance in first year undergraduate study of statistics, 2004.</li></ul> <b>The University of Adelaide</b> , <ul style="list-style-type: none"><li>• School of Psychology divisional PhD scholarship, 2008.</li></ul>	
ACADEMIC APPOINTMENTS	<b>School of Mathematical Sciences, The University of Adelaide</b>  <i>Casual Academic Staff Member</i> <b>Intermittent, March 2006 to Present</b> <ul style="list-style-type: none"><li>• Marking of assignments for the courses:<ul style="list-style-type: none"><li>• Mathematics I and IM</li><li>• Differential Equations and Fourier Series II</li><li>• Vector Analysis and Complex Analysis II</li></ul></li></ul>	

- Running of computer practical sessions for the course Mathematics I:
  - Demonstration of MATLAB programming techniques in front of classes of 2030 students
  - One-on-one assistance of first time MATLAB programmers

**School of Psychology, The University of Adelaide**

*Tutor*

**March 2010 to July 2010**

- Planning and running of tutorials for the course Computational Cognitive Science III
- Markned of assignments for the course Computational Cognitive Science III

PUBLICATIONS

A. Metcalfe, L. Maurits, T. Svenson, R. Thach, G. E. Hearn. Modal analysis of a small ship sea keeping trial. *ANZIAM Journal*, vol 47, pp. 915933, 2005

CONFERENCE PUBLICATIONS

Maurits, L., Perfors, A., Navarro, D. (in press) Why are some word orders more common than others? A uniform information density account. *Advances in Neural Information Processing Systems*, 23. (Accepted 30 August 2010)

Maurits, L., Perfors, A., Navarro, D. Joint acquisition of word order and word reference. *Proceedings of the 31th Annual Conference of the Cognitive Science Society*, pp. 17281733, 2009.

PROFESSIONAL EXPERIENCE

**m.Net Corporation**, Adelaide, SA Australia

*Research Analyst*

**June 2007 to May 2008**

- Investigated applicability of Latent Dirichlet Allocation models to collaborative filtering applications for mobile phone-distributed products and developed software implementations of same.
- Developed simple website clickstream analysis software.

*Mobile Applications Engineer*

**September 2007 to January 2008**

- Worked on Campaign Mobile web-based SMS marketing application. Key responsibilities were: web application security, spam detection and prevention, secure storage of credit card details, automted billing system including processing of credit card transactions. Core technologies used were: Java 5, Apache Tomcat, PostgreSQL, Hibernate ORM, Eclipse IDE, SVN revision control.

TECHNICAL SKILLS Extensive hardware and software experience in networking and information technology

Applications: T<sub>E</sub>X, L<sup>A</sup>T<sub>E</sub>X, B<sub>I</sub>B<sub>T</sub>E<sub>X</sub>, Microsoft Office, and other common productivity packages for Windows, and Linux platforms

Programming: C, Java, MATLAB, PHP, Python, SQL, SVN

Operating Systems: Microsoft Windows XP, Linux (various distributions), NetBSD, OpenBSD