

Curriculum Vitae
ZOUBIN GHAHRAMANI

CONTACT DETAILS

Department: Department of Engineering
University of Cambridge
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Cambridge CB2 1PZ, UK

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PRINCIPAL APPOINTMENTS

Professor of Information Engineering, Jan 2006–present
Department of Engineering,
University of Cambridge, UK

Associate Research Professor, Apr 2003–present
School of Computer Science,
Carnegie Mellon University, USA

Fellow, Oct 2009–present
St John's College,
Cambridge, UK

OTHER APPOINTMENTS

Adjunct Faculty, Jan 2006–present
Gatsby Computational Neuroscience Unit,
University College London, UK

Adjunct Professor, May 2007–present
Department of Computer Science & Engineering,
Pohang University of Science and Technology (POSTECH), South Korea

EDUCATION

Ph.D. in Cognitive Neuroscience, 1995. Department of Brain and Cognitive Sciences
Massachusetts Institute of Technology, USA
Dissertation: *Computation and Psychophysics of Sensorimotor Integration*
Supervisors: Prof Michael I. Jordan (primary) and Prof Tomaso Poggio (secondary)

B.A. *summa cum laude* in Cognitive Science, 1990
Minor in Mathematics. Phi Beta Kappa
University of Pennsylvania, USA

B.S.Eng. *summa cum laude* in Computer Science and Engineering, 1990
University of Pennsylvania, USA

PROFESSIONAL HISTORY

Reader in Machine Learning, Oct 2003–Jan 2006
Gatsby Computational Neuroscience Unit, University College London, UK

Honorary Lecturer, Sep 1998–Jan 2006
 Department of Computer Science and Department of Psychology, University College London, UK

Lecturer, Sep 1998–Sep 2003
 Gatsby Computational Neuroscience Unit, University College London, UK

Visiting Fellow, February, 2003,
 Computer Sciences Laboratory, Research School of Information Sciences and Engineering,
 Australian National University, Australia

Visiting Associate Professor, Jan 2002–May 2002
 Center for Automated Learning and Discovery, School of Computer Science,
 Carnegie Mellon University, USA

Visiting Researcher, September, 1999,
 NTT Computer Science Labs, Kyoto, Japan

Postdoctoral Fellow, Sep 1995–Sep 1998
 Department of Computer Science, University of Toronto, Canada

Research Assistant, Summer 1991
 Learning Systems Group,
 Siemens Corporate Research, USA

Senior Staff Technologist, Summer 1989, 1990
 Artificial Intelligence and Information Science Research Group,
 Bell Communications Research, USA

Research Assistant, 1987–1990
 University of Pennsylvania, Language, Information, and Computation Lab, Philadelphia, PA, USA

EDITORIAL, CONFERENCE, AND PEER REVIEWING ACTIVITIES

Editorial Board Memberships:

<i>IEEE Pattern Analysis and Machine Intelligence (PAMI)</i> , ¹ Associate Editor	2005-2007
Associate Editor-in-Chief	2007-2011
<i>Cambridge Series in Statistical and Probabilistic Mathematics</i> , Series Editor	2009-present
<i>Foundations and Trends in Machine Learning</i> , Editorial Board Member,	2007-2010
<i>Annals of Statistics</i> , Associate Editor	2007-present
<i>Journal of Machine Learning Research</i> ² , Action Editor (2006-)	2000-present
<i>Journal of Artificial Intelligence Research</i> , Editorial Board Member,	2006-2009
<i>Springer Encyclopedia of Machine Learning</i> , Editorial Board Member,	2005-2010
<i>Machine Learning</i> , ³ Editorial Board Member (2000-2001), re-joined as Editor	2005-present
<i>Bayesian Analysis</i> , Associate Editor	2004-present
<i>Neural Computing Surveys</i>	1998-2006

Scientific Advisory Boards:

Opera Solutions Scientific Advisory Board,	2011
INRIA Evaluation Board, Cognitive Systems, France	2007
Max-Planck Institute for Biological Cybernetics, Tübingen, Germany	2006-2010
Austrian Research Center Seibersdorf,	2005-2010
Microsoft Research Cambridge, Technical Advisory Board,	2006-2012
International Machine Learning Society, Board Member,	2006-2011

¹Ranked #1 among 209 Electrical Engineering and #5 among 347 Computer Science titles in 2004 Journal Citation Report.

²Ranked #2 among 347 Computer Science titles in the 2004 Journal Citation Report

³Ranked #12 among 347 Computer Science titles in the 2004 Journal Citation Report

Conference and Workshop Co-organizer:

Workshop on Copulas and Machine Learning, NIPS, Granada,	2011
General Chair, International Conference on Machine Learning, USA	2011
Workshop on Transfer learning by learning rich generative models, NIPS, Vancouver,	2010
Machine Learning Summer School, Cambridge	2009
Workshop on Nonparametric Bayes, NIPS, Vancouver	2009
EPSRC Symposium on Information Extraction from Complex Data Sets, Warwick	2009
Workshop on Nonparametric Bayes, ICML/UAI/COLT, Helsinki, Finland	2008
Program Chair, International Conference on Machine Learning, Oregon, USA	2007
Open Problems in Gaussian Processes for Machine Learning Workshop, NIPS, Canada,	2005
Program Co-Chair, Intern. Work. on AI & Statistics (AISTATS), Barbados,	2005
Learning Theoretic and Bayesian Inductive Principles, London, UK,	2004
Unreal Data: Learning from Nonvectorial Data, NIPS, Whistler, BC, Canada,	2002
Inference and Learning in Graphical Models, NIPS, Breckenridge, CO, USA,	1997

Conference Program Committee Member:

Case Studies in Bayesian Analysis and Machine Learning	2009
Workshop on Learning with Nonparametric Bayesian Methods, ICML	2006
Uncertainty in Artificial Intelligence (UAI):	
2001, 2002, 2003, 2005, Senior Programme Committee	2006
IEEE Conference on Computer Vision and Pattern Recognition (CVPR):	Area Chair 2006
International Conference on Machine Learning (ICML):	
1998, 2000, Area Chair 2004, Area Chair 2005, 2006, Program Chair 2007, 2008	
International Joint Conference on AI (IJCAI):	2005
Workshop on "Exploiting Unlabeled Data In Machine Learning and Data Mining", ICML:	2003
Neural Information Processing Systems (NIPS):	
Area Chair 1999, Area Chair 2000, Publications Chair 2001, Publicity Chair	2002
Artificial Intelligence and Statistics Conference:	2001, 2007
European Conference on Machine Learning, Instance Selection Workshop:	2001
American Association for Artificial Intelligence:	2000
Turkish Symposium on Artificial Intelligence and Neural Networks:	1996

Grants Reviewed for: U.S. National Science Foundation (Statistics; Circuits and Signal Processing), Canadian Natural Sciences and Engineering Research Council (Computer Science), U.K. National Endowment for Science, Technology and the Arts, U.K. Engineering and Physical Sciences Research Council (Peer Review College Member). Israel-U.S.A. Binational Science Foundation. Mathematics of Information Technology and Complex Systems (Canada). ICTP Grants for Third World Scientific Meetings (UNESCO/Italy). Council of Physical Sciences of the Netherlands Organization for Scientific Research (NWO).

Journal Articles Reviewed for: *Bayesian Analysis, BMC Bioinformatics, Cognitive Science, Exp. Brain Res., IEEE Trans. Biomed. Eng., IEEE Trans. Comp. Biol. and Bioinformatics, IEEE Trans. on Evol. Comp., IEEE Trans. Pat. Anal. & Machine Intell., IEEE Trans. on Neural Networks, IEEE Trans. in Speech & Audio Proc., J. Artif. Intell. Res., Int. J. Pattern Recognition and Artificial Intelligence, Iranian J. of Elect. and Comp. Eng. J. Exp. Psychol: Human Percept. & Perform., J. Machine Learn. Res., Machine Learning, Nature, Nature Neuroscience, Neural Computation, Neural Networks, Neurocomputing, NeuroImage, Proceedings of the National Academy of Sciences, Psychometrika, VLSI Signal Proc. Sys.*

Conference Papers Reviewed for: Annual Conference of the Cognitive Science Society, Neural Information Processing Systems, International Conference on Artificial Neural Networks, International Joint Conference on Artificial Intelligence (outstanding reviewer award), Workshop on AI and Statistics (outstanding reviewer award).

Invited Participant:

Isaac Newton Institute for Mathematical Sciences, Statistical Theory and Methods for Complex, High-Dimensional Data Programme, 2008, Cambridge, UK
 Dagstuhl International Research Center for Computer Science, 2001, Wadern, Germany

Dagstuhl International Research Center for Computer Science, 1999, Wadern, Germany
Isaac Newton Institute for Mathematical Sciences, Neural Networks and Machine Learning Programme, 1997 Cambridge, UK

Consultancies:

FX Concepts, USA
DataPath, USA
Microsoft Research Cambridge, UK
Glaxo-Wellcome Medicines Research Laboratories, UK
NTT Computer Science Labs, JAPAN

Professional Societies:

Fellow of the Royal Statistical Society
Institute of Electrical and Electronic Engineers (IEEE)

PRIZES, AWARDS AND OTHER HONOURS

Best Student Paper Award, 27th Conference on Uncertainty in Artificial Intelligence (UAI) 2011
Best Paper Award, International Conference on Artificial Intelligence and Statistics, 2010
Best Paper Honorable Mention, International Conference on Machine Learning, 2009
Microsoft (2010, 2006) and Google (2008) Research Awards (see below under Grants)
Innovation Award for Excellence in Strategic Research. Ontario ITRC (with G. Hinton), 1996
McDonnell-Pew Fellowship, Massachusetts Institute of Technology, 1990–1995
Dean’s Scholar Award, University of Pennsylvania, 1988
University Scholar, University of Pennsylvania, 1986
25th Anniversary Scholarship, American School of Madrid, 1986

GRANTS

Microsoft Research Award “Learning to Answer Natural Language Database Queries”, 2012, \$100,000
Infosys “Machine Learning Models for Market Basket Analysis”, 2011-2013, \$296,653
EPSRC “Advanced Bayesian Computation for Cross-Disciplinary Research” (EP/I036575/1), 2011-2015, £ 1,158,512
Google Doctoral Fellowship (2010) “Advanced Machine Learning for Interactive Search”, £ 75,000
Microsoft Research Award (2010), “Probabilistic Knowledge Bases” \$ 129,580
EPSRC “Advanced Algorithms for Neural Prosthetic Systems” (EP/H019472/1), 2010-2013, £ 398,050
International Foreign Exchange Concepts, “Machine Learning Methods for High Frequency Foreign Exchange Trading”, 2009-2012, £ 117,426.
Google Research Award (2008), “Google-scale non-parametric Bayesian Machine Learning”, \$ 85,000
DataPath, “Probabilistic Models for Monitoring and Control of Distributed Systems”, 2008-2011, £ 136,605 (\$ 281,407)

Microsoft Research PhD Scholarship, “Machine learning models for large-scale systems and networks”, 2008-2011, £ 66,000

EPSRC “Managing the Data Explosion in Post-Genomic Biology with Fast Bayesian Computational Methods” (EP/F027400/1), 2008-2011, £ 257,455

EPSRC “Graphical Models for Relational Data: New Challenges and Solutions” (EP/F026641/1), 2008-2009, £ 190,576

Cambridge-MIT Institute, “Machine Learning for Autonomous Robots” (2007), £ 4,000.

Microsoft Live Labs Research Award (2006), \$ 50,000.

Microsoft Research Gift (2006), £ 10,000.

Gatsby Charitable Foundation: Neural Computation grant to G Hinton (Director), P Dayan, Z Li, and Z Ghahramani (1998-2008). About £10,000,000.

U.S. DARPA Perceptive Agent that Learns (PAL) program, “Cognitive Agent that Learns and Organizes” (CALO). (2003-2008) Subcontract from SRI to CMU. \$250,000 so far in direct costs to my group at CMU.

E.U. PASCAL Network of Excellence on “Pattern Analysis, Statistical Modeling and Computational Learning” (2003-2007) I coordinate the UCL site, which is one of 57 sites sharing euro 5,440,000 over 5 years.

U.S. National Institute of Health (NIH), Machine Learning Techniques for Protein Fold and Remote Homology Recognition. 2002-2007. \$286,258 direct costs to UCL. Co-applicant.

The Wellcome Trust, Modularity of Learning in Movement Control, 2000-2003. Research grant to support Alex Korenberg’s PhD studentship £13,580.

EPSRC Life Sciences Interface Network: Processing and representation of speech and complex sounds (one of 20 members, 1999-2002, £50,000, headed by Prof. Chris Darwin, Sussex)

EU Marie Curie Training Site, Institute of Movement Neuroscience, 2000-2004 (one of 10 participants, 2000-2003, euro 240,0000)

INVITED TALKS (1996–)

- 2010** Machine Learning for Signal Processing (plenary), Kittila, FINLAND
 NIPS Sam Roweis Symposium, Vancouver, CANADA
 Dept of Computing, Distinguished Seminar, Imperial College London, UK
 NIPS Workshop on Transfer Learning Via Rich Generative Models, CANADA
 European Research Network on System Identification, Cambridge UK
 EURANDOM Workshop on Bayesian Nonparametric Statistics (3 lectures), NETHERLANDS
 International Conference on Machine Learning and Applications (keynote), Washington DC, USA
 Dept of Computer Science, University of York, UK
 Dept of Engineering, Oxford University, UK
 Cancer Research UK, Cambridge, UK
 CEU 2010 Summer School: Beliefs and Decisions of Mind and Machines, HUNGARY
 Fourteenth Conference on Computational Natural Language Learning, Uppsala, SWEDEN
 ISBA Valencia Meeting, (invited discussant), SPAIN
- 2009** INSPIRE 2009 Conference on Statistics and Signal Processing, Imperial College London, (plenary speaker), UK
 Unilever Centre for Molecular Informatics, Dept of Chemistry, Cambridge University, UK

- Causality Group, Statistical Laboratory, Cambridge University, UK
 Bayesian Nonparametrics Workshop, Turin, ITALY
 International Computer Vision Summer School, Sicily, ITALY
 Deep Learning Workshop, Gatsby Unit, UK
- 2008** Dept of Statistics, Harvard University, USA
 Dept of Electrical Engineering and Computer Science, MIT, USA
 Dept of Electrical and Computer Engineering, Northeastern University, USA
 Dept of Computing, Imperial College, UK
 Learning and Inference in Computational Systems Biology Workshop, Warwick, UK
 Inference and Estimation in Probabilistic Time-Series Models, Isaac Newton Institute, UK
 Dept of Computer Science, ETH Zürich, SWITZERLAND
 Radboud University of Nijmegen, NETHERLANDS
 Dept of Computer Science, University of Toronto, CANADA
 AT&T Shannon Labs, USA
 Dept of Computer Science, Princeton University, USA
 Yahoo! New York, USA
 Dept of Computer Science (Distinguished Speaker), Columbia University, USA
 2008 EPSRC Winter School: Mathematics For Data Modelling, Sheffield University, UK
 Isaac Newton Institute for Mathematical Sciences, Cambridge, UK
 Horizon Meeting, Thinking Machine? University of Cambridge, UK
 Machine Learning, Carnegie Mellon University, USA
- 2007** Department of Computer Science, Brown University, USA
 Royal Bank of Scotland, London, UK
 Machine Learning Summer School, Tübingen, Germany
 IPAM Summer School, Probabilistic Models of Cognition, Los Angeles, USA
 Department of Statistics, University of Leeds, UK
 Department of Computing Science, University of Glasgow, UK
 Department of Engineering Mathematics, University of Bristol, UK
 Cambridge Statistics Discussion Group, University of Cambridge, UK
- 2006** Statistical Laboratory, University of Cambridge, UK
 Yahoo! Inc, New York, USA
 Institute of Mathematical Statistics Annual Meeting, Graphical Models Workshop, Rio, BRAZIL
 Merrill Lynch, London, UK
 MRC Cognition and Brain Sciences Unit, Cambridge, UK
 Cambridge Computational Biology Annual Symposium, Cambridge, UK
 Newton Institute Workshop, Recent Advances in Monte Carlo Based Inference, Cambridge, UK
 Bayesian Inference in Complex Stochastic Systems, Warwick, UK
 CVPR Area Chair Meeting, New York University, USA
 MaxEnt: Int. Workshop on Bayesian Inference and Maximum Entropy Methods, Paris, FRANCE
 Valencia 8: the Eighth Valencia International Meeting on Bayesian Statistics, SPAIN
 Engineering Department, Oxford University, UK
 Institute for Communicating and Collaborative Systems, University of Edinburgh, UK
- 2005** D E Shaw & Co, New York, USA
 Empirical Inference Group, Max Planck Institute for Biological Cybernetics, GERMANY
 Gaussian Process Round Table, Sheffield, UK

- Machine Learning Summer School, TTI, Chicago, USA
 Joint Symposium on Computational Intelligence, Jeju Island, KOREA
 Pohang University of Science and Technology (POSTECH), KOREA
 Korea Advanced Institute of Science and Technology (KAIST), KOREA,
 Engineering Department, University of Cambridge, UK
 ICML Workshop on Learning with Partially Classified Training Data, GERMANY
- 2004** Workshop on Kernels and Graphical Models, NIPS Conference, CANADA
 Workshop on Structured Data and Representations in Probabilistic Models for Categorization,
 NIPS Conference, CANADA
 Department of Mathematics and Statistics, University of Lancaster, UK
 Natural Computation Group, Dept Computer Science, University of Birmingham, UK
 Department of Biophysics, SNN Group, University of Nijmegen, NETHERLANDS
 Machine Learning Workshop, University of Sheffield, UK
 Learning 2004 Conference, Elx, SPAIN
 Neural Networks and Disordered Systems Group, Math Dept, Kings College London, UK
 Dept of Computing, Computational Bioinformatics Laboratory, Imperial College, London, UK
 Dept of Statistics, University of Kent, Canterbury, UK
 Image, Speech and Intelligent Systems (ISIS) Research Group, Univ of Southampton, UK
 Interdisciplinary Programme for Cellular Regulation, Statistics Department, University of War-
 wick, UK
- 2003** Machine Learning in Bioinformatics Conference, (invited speaker) Brussels, BELGIUM
 Empirical Inference Group, Max Planck Institute for Biological Cybernetics, GERMANY
 Annual Meeting of the Society for Mathematical Psychology, (invited speaker) Ogden, UT, USA
 Computational Sensorimotor Control Meeting, Grasse, FRANCE
 International Workshop on AI and Statistics (invited speaker), Florida, USA
 Workshop on Graph Partitioning in Vision and Machine Learning, Pittsburgh, PA, USA
 Spanish Pattern Recognition Network Meeting, Mallorca, SPAIN
 Department of Computer Science, Royal Holloway, University of London, UK
 Inference Group, Cavendish Laboratories, Cambridge University, UK
- 2002** Workshop on Modelling of Nonlinear Dynamic Systems (keynote speaker). Kildare, IRELAND
 Workshop on Neural Networks for Signal Processing (keynote speaker), SWITZERLAND
 Neural Computing Applications Forum, Sheffield, UK
 Department of Electrical Engineering and Computer Science, UC Berkeley, USA
 Department of Statistics, Carnegie Mellon University, USA
 Center for Neural Basis of Cognition, Carnegie Mellon University, USA
 Robotics Institute Retreat, Carnegie Mellon University, USA
 WhizBang! Research Labs, USA
- 2001** International Research Center for Computer Science, Schloss Dagstuhl, GERMANY
 Microsoft Research, Cambridge UK
 Department of Computer Science, University of Essex, UK
 School of Cognitive and Computing Sciences, University of Sussex, UK
- 2000** Department of Computer Science, Carnegie Mellon University, USA
 Workshop on Real-Time Modeling for Complex Learning Tasks, NIPS Conference, USA
 Department of Computer Science, Technical University of Helsinki, FINLAND

- Institute for Communicating and Collaborative Systems, University of Edinburgh, UK
 Department of Engineering, University of Cambridge, UK
 Instituto Superior Tecnico, Lisbon, PORTUGAL
 20/20 Speech, Great Malvern, UK
 NeuroCOLT Meeting on New Perspectives in the Theory of Neural Nets, Graz, AUSTRIA
 Dept. of Experimental Math. and Stat., Vienna Univ. of Econ. and Bus. Admin., AUSTRIA
 Neural Control of Movement, Computational Satellite Meeting, Key West, FL, USA
 Department of Mathematical Sciences, University of Durham, UK
 Institute for Adaptive and Neural Computation, University of Edinburgh, UK
- 1999** Department of Statistical Science, University College London, UK
 Workshop on Advanced Mean Field Methods, NIPS Conference, Breckenridge, USA
 Department of Experimental Psychology, University of Sussex, UK
 ATR Human Information Processing Research Laboratories, Kyoto, JAPAN
 NTT Computer Science Laboratory, Kyoto, JAPAN
 Neural Networks Session, Meeting of the International Statistical Institute, Helsinki, FINLAND
 International Research Center for Computer Science, Schloss Dagstuhl, GERMANY
 Department of Mathematical Modelling, Technical University of Denmark, DENMARK
 PhD Course on Computational Issues in Motor Control, Aalborg University, DENMARK
- 1998** Workshop on Statistical Theories of Cortical Function, NIPS Conference, Breckenridge, USA
 Workshop on Sequential Inference and Learning, NIPS Conference, Breckenridge, USA
 Workshop on Learning Relational Data Representations, NIPS Conference, Breckenridge, USA
 Neural Systems Group, Imperial College, London, UK
 Beckman Institute, University of Illinois, IL, USA
 Department of Electrical and Computer Engineering, McMaster University. Hamilton, CANADA
- 1997** Isaac Newton Institute for Mathematical Sciences, Cambridge, UK
 Department of Psychology, York University, Toronto, CANADA
 Annual Meeting of the Canadian Applied Math Society, Fields Institute, Toronto, CANADA
 Department of Biomedical Engineering, Johns Hopkins University, Baltimore, MD, USA
 Machine Learning and Information Retrieval, AT&T Labs – Research, Murray Hill, NJ, USA
 Workshop on Autoencoders/Autoassociators. NIPS Conference. Breckenridge, CO, USA
 Workshop on Learning Dynamical Data Structures, NIPS Conference. Breckenridge, CO, USA
 Bioinformatics Group, Glaxo-Wellcome Medicines Research. Stevenage, UK
- 1996** Department of Electrical and Computer Engineering, McMaster University. Hamilton, CANADA
 AAAI Spring Symposium on Learning Dynamical Systems. Stanford, CA, USA
 Department of Neurophysiology, Institute of Neurology. London, UK
 Department of Computer Science & Applied Mathematics. Aston University. Birmingham, UK
 Speech, Vision & Robotics Group. Department of Engineering. Cambridge University, UK
 Department of Brain and Cognitive Sciences. University of Rochester. Rochester, NY, USA
 Department of Electrical and Computer Engineering. University of Waterloo, CANADA

ACADEMIC SUPERVISION

Postdoctoral Fellows:

Name	Dates	Present Position	My role
Emanuel Todorov	1999-2001	Associate Professor, Univ Washington	supervisor
Hagai Attias	1998-1999	Chairman & Chief Scientist, Golden Metallic Inc	co-supervisor
Sam Roweis	1999-2001	Associate Professor, NYU	co-supervisor
Carl E Rasmussen	2000-2002	Reader, Univ of Cambridge	co-supervisor
Fernando de la Torre	2002	Assistant Research Professor, CMU	supervisor
Mark Andrews	2002-2004	Research Fellow, UCL	co-supervisor
Jasvinder Kandola	2003-2004	Merrill Lynch	supervisor
Chu Wei	2003-2005	Yahoo! Labs	supervisor
Fernando Perez-Cruz	2003-2006	Dept Chair, Univ Carlos III, Spain	supervisor
Ricardo Silva	2005-2007	Lecturer in Statistics, UCL	supervisor
Karsten Borgwardt	2007-2008	Max Planck Institutes Tübingen	supervisor
Mikkel Schmidt	2008-2009	Postdoctoral Researcher, TU Denmark	supervisor
Katherine Heller	2008-2010	Postdoctoral Fellow, MIT	sponsor
Peter Orbanz	2008-		supervisor
Simon Lacoste-Julien	2008-		supervisor
Richard Turner	2010-		sponsor
John Cunningham	2010-		supervisor
Dan Roy	2011-		sponsor
Sinead Williamson	2011-		supervisor

Primary Research Student Supervision:

Name	Dates	Degree	Present Position
Matthew J Beal	1998-2003	PhD	Quantitative Researcher, Citadel
Alexander T Korenberg	1998-2003	PhD	Kilburn & Strode Patent Attorneys
Hyun-Chul Kim	2002-2003	PhD (visiting)	Postdoc, University of Michigan
Eric Tuttle	2001-2003	MPhil	Stanford Law School
Ed Snelson	2002-2007	PhD	Senior Research Analyst, FX Concepts
Iain A Murray	2002-2007	PhD	Lecturer, University of Edinburgh
Katherine A Heller	2003-2008	PhD	Postdoc, MIT
Arik Azran	2005-2008	PhD	
Sandy Klemm	2007-2008	MPhil	PhD student, MIT
Finale Doshi	2007-2009	MPhil	PhD student, MIT
Pedro Ortega	2006-2011	PhD	Research Associate, Cambridge University
Shakir Mohamed	2007-2011	PhD	CIFAR Fellow, UBC
Sinead Williamson	2006-2011	PhD	Postdoctoral Fellow, CMU
Frederik Eaton	2006-	PhD	
Alex Ksikes	2007-	PhD	
Jurgen Van Gael	2007-	PhD	Applied Researcher, Microsoft FUSE Labs
David Knowles	2008-	PhD	
Sebastien Bratieres	2009-	PhD	
Yue Wu	2009-	PhD	
Andrew Wilson	2009-	PhD	
Alex Davies	2010-	PhD	
Neil Houlsby	2010-	PhD	
Konstantina Palla	2010-	PhD	

Secondary Supervisor / Advisor:

Name	Dates	Degree	Department	University
Antonia Hamilton	2000	PhD	Neurophysiology	Inst of Neurology, UCL
Philipp Vetter	2001	PhD	Neurophysiology	Inst of Neurology, UCL
Xiaojin Zhu	2005	PhD	Computer Science	Carnegie Mellon University
Rong Jin	2002	MSc	Computer Science	Carnegie Mellon University
Yaron Rachlin	2002	MSc	Computer Science	Carnegie Mellon University
Ruslan Salakhutdinov	2003	MSc	Computer Science	University of Toronto
Andreas Argyriou	2008	PhD	Computer Science	UCL
JaeMo Sung	2008	PhD	Computer Science	POSTECH, Korea

Primary MSc Thesis Supervision:

Name	Dates	Degree
Adam Pitera	2001-2002	MSc, UCL
Aliya Paracha	2002-2003	MSc, UCL
Christian Fisher	2002-2003	MSc, UCL
Andreas Argyriou	2003-2004	MSc, UCL
Anthony Demco	2003-2004	MSc, UCL
Amit Jain	2003-2004	MSc, UCL
Phil Williams	2004-2005	MSc, UCL
Yuan Chen	2004-2005	MSc, UCL
Frederik Eaton	2005-2006	MSc, UCL

Thesis Examiner / Committee Member:

Name	Dates	Degree	Department	University
Yee Whye Teh	1998	MSc	Computer Science	Univ of Toronto
Amos Storkey	1999	PhD	Electrical Engineering	Imperial College
Harri Valpola	2000	PhD	Computer Science	Tech Univ Helsinki
Olivier Dupin	2000	MSc	Neural Computing	Aston University
Andrew Brown	2001	PhD	Computer Science	Univ of Toronto
Alberto Paccanaro	2001	PhD	Computer Science	Univ of Toronto
Brian Sallans	2001	PhD	Computer Science	Univ of Toronto
Lehel Csato	2002	PhD	Neural Computing	Aston University
John Winn	2003	PhD	Physics	Univ of Cambridge
Martijn Leisink	2004	PhD	Biophysics	Univ of Nijmegen
Yuan Qi	2004	PhD	Media Arts and Sciences	MIT
Iosifina Pournara	2005	PhD	Crystallography	Birkbeck College, London
Hyun-Chul Kim	2005	PhD	Comp. Sci. & Eng.	POSTECH, Korea
Xiaojin Zhu	2005	PhD	Computer Science	Carnegie Mellon University
Phil Cowans	2006	PhD	Physics	Univ of Cambridge
Jason Williams	2006	PhD	Engineering	Univ of Cambridge
Jian Zhang	2006	PhD	Computer Science	Carnegie Mellon University
Anna Goldenberg	2007	PhD	Computer Science	Carnegie Mellon University
Frank Wood	2007	PhD	Computer Science	Brown University
Imre Risi Kondor	2007	PhD	Computer Science	Columbia University
Yan Karklin	2007	PhD	Computer Science	Carnegie Mellon University
Lisa Wainer	2007	PhD	Computer Science	University College London
Tae-Kyun Kim	2007	PhD	Engineering	Univ of Cambridge
Benjamin Marlin	2008	PhD	Computer Science	University of Toronto
Julia Lasserre	2008	PhD	Engineering	University of Cambridge
Peter Orbanz	2008	PhD	Computational Science	ETH Zürich
Joris Mooij	2008	PhD	Dept. of Biophysics	Radboud Univ Nijmegen
Hanna Wallach	2008	PhD	Physics	University of Cambridge
Jason Ernst	2008	PhD	Computer Science	Carnegie Mellon University
Jim Huang	2009	PhD	Elect. and Computer Eng.	University of Toronto
Rebecca Hutchinson	2009	PhD	Computer Science	Carnegie Mellon University
Sajid Sidiqqi	2009	PhD	Computer Science	Carnegie Mellon University
Lavi Shpigelman	2010	PhD	Neural Computation	Hebrew Univ of Jerusalem
Tom Stepleton	2010	PhD	Robotics	Carnegie Mellon University
Michael Osborne	2010	PhD	Engineering	Oxford University
Indrayana Rustandi	2010	PhD	Computer Science	Carnegie Mellon University
Han Liu	2010	PhD	Machine Learning and Stats	Carnegie Mellon University
Hui Guo	2010	PhD	Statistics	University of Cambridge
Philipp Hennig	2011	PhD	Physics	University of Cambridge
Amr Ahmed	2011	PhD	Computer Science	Carnegie Mellon University
Kyung-Ah Sohn	in progress	PhD	Machine Learning	Carnegie Mellon University
Juan Carlos Martinez	in progress	PhD	Statistics	University of Kent
Douglas Speed	in progress	PhD	Applied Mathematics	University of Cambridge
Khalid El-Arini	in progress	PhD	Computer Science	Carnegie Mellon University
Noel Welsh	in progress	PhD	Computer Science	University of Birmingham

TEACHING ACTIVITY**Undergraduate Teaching**

Signal and Pattern Processing (3F3) Cambridge University Engineering Department. 4 lectures. (2006-)

Photo Editing and Image Search (paper 8, part IB) Cambridge University Engineering

Department. 4 lectures. (2007-)

Machine Learning (4F13) Cambridge University Engineering Department. 16 lectures (2006-).
About 60 students.

PhD Courses:

Unsupervised Learning: taught at the Gatsby Computational Neuroscience Unit in the first terms of 1998 (when it was called Neural Computation), and 2000-2005. It is a core requirement of the Gatsby Computational Neuroscience PhD programme and of the MSc Intelligent Systems programme in the computer science department. Between 10-35 students per year.

Statistical Approaches to Learning and Discovery: taught at Carnegie Mellon University in 2002. It was a core requirement of the MSc and PhD in Knowledge Discovery and Data Mining and was cross listed between the Computer Science, Statistics, Philosophy Departments and the Center for Automated Learning and Discovery. About 30 students.

Statistical Machine Learning: co-taught at Carnegie Mellon University in 2008. Core requirement of PhD in Machine Learning and cross listed with Statistics.

Conference Tutorials:

Nonparametric Bayesian Methods (UAI Conference, 2005)

Bayesian Methods for Machine Learning (ICML Conference, 2004)

Probabilistic Models for Unsupervised Learning (ICANN Conference, 2002)

Unsupervised Learning (Technical University of Denmark, 2001)

Probabilistic Models for Unsupervised Learning (NIPS Conference, 1999)

Neural Computation (London, 1999)

Summer School Lectures:

Machine Learning Summer School (Cambridge, 2009)

EPSRC Data Modelling Winter School (Sheffield, UK, 2008)

IPAM Graduate Summer School: Probabilistic Models of Cognition (LA, USA, 2007)

Machine Learning Summer School (Tübingen, Germany, 2007)

Machine Learning Summer School (Chicago, USA, 2005)

Machine Learning Summer School (Canberra, Australia, 2003)

EU Advanced Course in Computational Neuroscience (Obidos, Portugal, 2002)

Autumn School in Cognitive Neuroscience (Oxford, UK, 2001)

EU Advanced Course in Computational Neuroscience (Trieste, Italy, 2001)

Machine Learning PhD course at Carnegie-Mellon University (USA, 2000)

EU Advanced Course in Computational Neuroscience (Trieste, Italy, 2000)

PhD Course on Computational Motor Control (Aalborg, Denmark, 1999)

Summer School on Adaptive Processing of Temporal Information (Salerno, Italy, 1997)

Teaching Assistant:

Cognitive Neuroscience, MIT (1994)

Computational Cognitive Science, MIT (1992)

Introduction to Psychology, MIT (1991)

ENABLING ACTIVITY

CPHC/BCS Distinguished Dissertations Panel 2009-2012

Board of Electors, Oxford Professorship in Information Engineering, 2008-2009

Selection Committee, Director of UCL Centre for Computational Statistics & Machine Learning, 2006

External Examiner, MSc Information Processing & Neural Nets, King's College London, 2005-2009

Graduate Tutor, Gatsby Computational Neuroscience Unit, 2001-2005

Selection Committee, Chair in Computational Neuroscience, UCL, 2002

Selection Committee, Lecturer in Intelligent Systems, Computer Science, UCL, 2002

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