

Education

PhD , University of Cambridge (UK)	2014 - 2018
Thesis title: The role of planning in motor learning	
Coursework: Computational Neuroscience, Machine Learning	
Bachelor of Engineering (Hons) , University of Auckland (NZ)	2010 - 2014
Specialisation: Mechatronics Engineering	
Graduated top in class: GPA 8.78/9.0	
Deans Honours List (top 5% each year - 2010/'11/'12/'13)	

Other Courses

Deep Learning & Reinforcement Learning Summer School , CIFAR & Mila (CAN)	2020
AI Summer School , Microsoft Research (UK)	2018
Computational & Cognitive Neuro Summer School , NYU Shanghai (CHN)	2017

Research Experience

Postdoctoral Research Associate , University of Oxford (UK)	2018 - 2021
Research Associate of Wadham College	
Group: Human Information Processing Lab, Experimental Psychology	
Research: Structure learning in humans and neural networks	
PI: Prof. Christopher Summerfield	
PhD Research , University of Cambridge (UK)	2014 - 2018
Group: CBL, Information Engineering	
Research: Human motor learning of novel dynamics	
Supervisor: Prof. Daniel Wolpert	
Undergraduate Research , University of Auckland (NZ)	2013
Design and build of a stroke rehabilitation robot	
Research Assistant , University of Auckland (NZ)	2012
3D human motion recording and kinematics analysis	

Journal Publications

- [1] **Sheahan, H.***, Luyckx, F.*, Nelli, S., Teupe, C., & Summerfield C. 2020. Neural state space alignment for magnitude generalization in humans and recurrent networks. *Neuron*, (in press).
- [2] Albert, S., Jang, J., **Sheahan, HR.**, Teunissen, L., Vandevorode, K., & Shadmehr, R. 2021. An implicit memory of errors limits human sensorimotor adaptation. *Nature Human Behaviour*. <https://doi.org/10.1038/s41562-020-01036-x>
- [3] Summerfield, C., Luyckx, F., & **Sheahan, HR.** 2020. Structure learning and the posterior parietal cortex. *Progress in Neurobiology*. 184
- [4] Sadeghi, M., **Sheahan, HR.**, Ingram, JN., & Wolpert, DM. 2019. The visual geometry of a tool modulates generalization during adaptation. *Scientific Reports*. 9, (2731)
- [5] **Sheahan, HR.**, Ingram, JN., Zalalyte, GM. & Wolpert, DM. 2018. Imagery of movements immediately following performance allows learning of motor skills that interfere. *Scientific Reports*. 8 (14330)
- [6] **Sheahan, HR.**, Franklin, DW. & Wolpert, DM. 2016. Motor Planning, Not Execution, Separates Motor Memories. *Neuron*. 92 (4), 773-779
- [7] Milsom, SA., Sweeting, JA., **Sheahan HR.**, Haemmerle, E. & Windsor, JA. 2015. Naso-enteric tube placement: a review of methods to confirm tip location, global applicability and requirements. *World Journal of Surgery*. 39 (9), 2243-2252

Industry Experience

Mechanical Engineer , Beca (NZ) Engineering consulting	2014
Research & Design Engineer (intern) , Adept Ltd. (NZ) Design of shop floor robots and industrial research	2012-13

Awards and Funding

Non-Stipendiary Research Associate, Wadham College, University of Oxford £3,300 over 3 years	2018
Benefactor's Scholarship, St John's College, University of Cambridge £1,300	2014
Cambridge-Rutherford Memorial Scholarship, Royal Society of New Zealand 3 yr full funding postgraduate award worth £115,000 3 awarded nationally/year in New Zealand	2013
Fulbright Scholarship postgraduate research award worth US\$26,000 (offer declined)	2013
Beca & Rotary Club of Auckland Scholarship, University of Auckland awarded to the most outstanding all-round final year engineering student, NZ\$5,000	2013
Rotary Youth Leadership Award	2013
Auckland University Engineering Association Scholarship, University of Auckland NZ\$2,500	2012
Summer Student Research Scholarship, University of Auckland NZ\$5,000	2011
Beca Part II Engineering Scholarship, University of Auckland NZ\$2,500	2011

Languages and Tools

Python, C#, C++, Unity, MATLAB, PyTorch	https://github.com/hannahsheahan
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Other Interests

Athena SWAN Committee, Cambridge University Engineering Department	2018
Cambridge University Association Football Club (Women's Eagles)	2014-16
Women's Welfare Officer, St John's College SBR, Cambridge University	2014-16
Part II, III, IV Class Representative, University of Auckland	2011-13

Referees

Prof. Chris Summerfield (Postdoc supervisor) University of Oxford, UK christopher.summerfield@psy.ox.ac.uk	Prof. Daniel Wolpert (PhD supervisor) Columbia University, USA wolpert@columbia.edu
Dr. Andrew Saxe (collaborator) University of Oxford, UK andrew.saxe@psy.ox.ac.uk	