

ROSS HARPER

Founder and CEO of Limbic

@ ross@limbic.ai

in linkedin.com/in/refharper

☎ +44 (0)7540249617

📍 British

🎂 3rd November 1989

EDUCATION

PhD in Computational Neuroscience

University College London

📅 Sep 2014 – Sep 2017 🎓 No Corrections

MRes in Modelling Biological Complexity

University College London

📅 Sep 2013 – Sep 2014 🎓 Distinction

MA in Natural Sciences

University of Cambridge

📅 Sep 2008 – Sep 2011 🎓 Upper Second Class

EXPERIENCE

Founder and CEO

Limbic Limited

📅 Sep 2017 – Present 🌐 limbic.ai

- Founded an AI start-up to build a scalable solution for mental health monitoring via consumer fitness trackers.
- Developed Bayesian neural networks for inference of emotional valence from optical heart data.
- Raised venture capital and successfully secured a Horizon 2020 grant from the European Commission.
- Released an API/SDK tool that collected and analysed data from over 200,000 end users around the world.

Resident Entrepreneur

Google

📅 Feb 2019 – Present 🌐 campus.co

- Selected as one of five start-ups in the UK for Google's 2019 Start-Up Residency programme.
- Supported with mentorship from senior Googlers, cloud resources, PR, workshops, and permanent office space.

Cohort Member

Entrepreneur First

📅 Sep 2017 – Mar 2018 🌐 joinef.com

- Leading start-up accelerator programme with offices in London, Paris, Berlin, Singapore, Bangalore, and Hong Kong.
- Selected onto the cohort (fewer than 3% of applicants are offered a place) and was one of 50% of founders who received £70,000 from EF's investment committee.
- Received weekly mentorship from Chris Mairs (former CTO of Metaswitch Technologies and Chairman of the Board at Magic Pony).

Visiting Scholar

Emory University/Georgia Institute of Technology

📅 Apr 2016 – Jun 2016 📍 Atlanta, USA

- Awarded a research fellowship to conduct research in the USA.
- Applied machine learning (inc. Deep Neural Networks and Gaussian Processes) to locomotor time series.

Deputy Editor

Guru Magazine Ltd

📅 2012 – 2014

- Edited online science and technology publication supported by the Wellcome Trust (readership c.a. 40,000)
- Contributed 7 original articles to the monthly publication.
- Hosted podcasts and oversaw restructuring as a cooperative business.

Founder and Director

Wriggle Ltd

📅 2012 – 2013

- Founded a mobile game development company. Our debut app received over 1,500 downloads in the first month.
- Best Start-Up App at the London Appsters 2012 (finalist).
- Managed a team of developers and led product design.

Founder and Director

BuyMyFace.com

📅 2011 – 2012

- Founded popular viral marketing website, BuyMyFace.com to pay off my university debt upon graduating.
- Featured in over 400 news publications worldwide (including BBC, ITV, and the front page of the Sunday Times).

HONORS & AWARDS

- 🏆 The Duke of York New Entrepreneur of the Year, Lloyd's Bank National Business Awards (2018)
- 🏆 IoT Founder of the Year (finalist), BMW (2018)
- 🏆 Bogue Research Fellowship (2016)
- 🏆 UCL Neuroscience Symposium Poster Prize (2016)
- 🏆 Oxford University SCNi Poster Prize (2015)
- 🏆 British Society for Cell Biology Writing Prize (2015)
- 🏆 British Biochemical Society Writing Prize (2014)
- 🏆 CrowdBank Crowd Funding Competition Winner (2013)
- 🏆 Shell LiveWIRE Award (2012)

JOURNAL PUBLICATIONS

- **REF Harper**, P Dayan, JT Albert, R Stanewsky (2016). Sensory conflict disrupts activity of the *Drosophila* circadian network. *Cell reports* 17 (7), 1711-1718.
- **REF Harper**, M Ogueta, P Dayan, R Stanewsky, JT Albert (2017). Light Dominates Peripheral Circadian Oscillations in *Drosophila melanogaster* During Sensory Conflict. *Journal of biological rhythms* 32 (5), 423-432.
- J Somers, **REF Harper**, JT Albert (2018). How many clocks, how many times? On the sensory basis and computational challenges of circadian systems. *Frontiers in behavioral neuroscience* 12.
- **REF Harper**, R Stanewsky, JT Albert, P Dayan. (2019). An Input Output Hidden Markov Model of the Circadian Clock. *In prep.*
- **R. Harper** and J. Southern (2019). A Bayesian Deep Learning Framework for End-To-End Prediction of Emotion from Heartbeat. *arXiv*.

I have also authored 11 additional conference posters, available upon request.

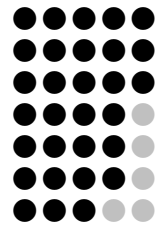
TALKS

- From PhD to Start-Up
Invited Speaker. *Cambridge University, hosted by Entrepreneur First.* (2019)
- Emotion Detection AI and Human-Computer Interaction
Invited Speaker. *Women in Tech, hosted by IBM.* (2018)
- Technology in Future Lifestyle
Panelist. *Roundtable chaired by Russ Shaw, London Tech Week.* (2018).
- Emotionally Intelligent AI and the Future
Invited Speaker. *Meet AI, hosted by Emotech Ltd and Cocon Networks.* (2018)
- Limbic: Turning Physical Fitness Trackers into Mental Fitness Trackers.
Invited Speaker *CognitionX Conference.* (2017).
- More heat than light about time: Multisensory processing in fly circadian clocks.
Invited speaker. *Joint workshop between Gatsby Computational Neuroscience Unit and Queensland Brain Institute.* (2017).
- Data Driven Chronobiology: Using Machine Learning and Signal Analysis Methods to Investigate Proprioceptive Contributions to Circadian Clock Entrainment.
Symposium speaker. *16th European Neurobiology of Drosophila Conference.* (2016).
- Sensory Conflict and Multimodal Entrainment of the *Drosophila* Circadian Clock.
Symposium speaker. *International Congress of Neuroethology, Montevideo, Uruguay* (2016).

The above is a selection of talks I have given. Details of a further 14 are available upon request.

SKILLS

Neuroscience, Probabilistic Modelling, Machine Learning, Deep Learning, Public Speaking, Science Journalism, Python, MATLAB, Mathematica, Pandas, Numpy, Keras, Tensorflow, SciKit-Learn, Matplotlib, R, HTML, CSS, GitHub



COURSES

Deep Learning Specialisation

Coursera

📅 Oct 2018

Sequence Models

Coursera

📅 Oct 2018

Systems & Theoretical Neuroscience

Gatsby Computational Neuroscience Unit

📅 Sep 2017

Unsupervised Learning

Gatsby Computational Neuroscience Unit

📅 Sep 2017

Machine Learning (Stanford University)

Coursera

📅 Oct 2016

REFEREES

Prof. Lewis Griffin

@ l.griffin@cs.ucl.ac.uk

✉ University College London
Dept. of Computer Science
66-72 Gower Street
London WC1E 6EA
United Kingdom

Prof. Ralf Stanewsky

@ stanewsky@uni-muenster.de

✉ University of Münster
Institute of Neuro- and Behavioral Biology
Badestr. 9
D-48149 Münster

Stefano Lorini

@ slorini@google.com

✉ Google Campus
4-5 Bonhill St
Shoreditch
London
EC2A 4BX