

## Work

- Sep 2017 onwards **Research Scientist at DeepMind**, London, UK.
- Jun – Sep 2017 **Research Intern at DeepMind**, London, UK.
- Jun – Aug 2015 **Research Intern at Microsoft Research (MSR)**, Cambridge, UK.
- Implemented social collaborative filtering techniques on *Delve*, Microsoft's document recommender system.
- Nov 2014 – May 2015 **Master's Thesis: Bayesian Approaches to Collaborative Filtering on the Netflix Data**, University of Cambridge. *Supervisor: Dr. Rajen Shah.*
- Jun – Oct 2014 **R package 'FSInteract'**, Statistical Laboratory, University of Cambridge. *Supervisor: Dr. Rajen Shah.*
- Created R implementation of *R. Shah, N. Meinshausen. Random Intersection Trees*, a fast algorithm for finding prevalent interactions in large-scale sparse binary data. 'FSInteract' available for download on **Comprehensive R Archive Network (CRAN)**

## Education

- Oct 2015 – Jul 2019 **University of Oxford**, PhD in Machine Learning.
- Areas of Research: Attention, Disentangling, Deep Generative Models, Gaussian Processes
  - Supervised by **Yee Whye Teh**, Professor of Statistical Machine Learning of the Statistics Department.
- 2011 – 2015 **Trinity College, University of Cambridge**, MMath, BA (Hons.) in Mathematics.
- Part IA:** First Class Honours **Part IB:** First Class Honours **Part II:** First Class Honours **Part III(MMath):** Distinction
- 2007 – 2011 **Hampton School**, Middlesex.
- Balkan Mathematical Olympiad:** Bronze Medal (Member of UK Team)
  - British Mathematical Olympiad:** UK top 10. **British Physics Olympiad:** Gold Medal, UK top 20

## Publications

- 2021 J. Xu, H. Kim, T. Rainforth, Y. W. Teh. **Group Equivariant Subsampling**. *Neurips 2021*.
- 2021 M. Hutchinson, C. Le Lan, S. Zaidi, E. Dupont, Y. W. Teh, H. Kim. **LieTransformer: Equivariant Self-Attention for Lie Groups**. *ICML 2021*.
- 2021 H. Kim et al. **The Lipschitz Constant of Self-Attention**. *ICML 2021*.
- 2020 J. Xu, J. Ton, H. Kim, A. Kosiorek, Y. W. Teh. **MetaFun: Meta-Learning with Iterative Functional Updates**. *ICML 2020*.
- 2019 H. Kim et al. **Attentive Neural Processes**. *ICLR 2019*.
- 2019 J. Schwarz, A. Galashov, H. Kim, M. Garnelo, D. Saxton, P. Kohli, A. Eslami, Y. W. Teh. **Meta-Learning surrogate models for sequential decision making**. *arXiv preprint arXiv:1903.11907*
- 2018 A. Kosiorek, H. Kim, I. Posner and Y. W. Teh. **Sequential Attend, Infer, Repeat: Generative Modelling of Moving Objects**. *NIPS 2018. Spotlight*
- 2018 H. Kim and A. Mnih. **Disentangling by Factorising**. *ICML 2018*.
- 2018 H. Kim and Y. W. Teh. **Scaling up the Automatic Statistician: Scalable Structure Discovery in Regression using Gaussian Processes**. *AISTATS 2018. Oral*
- 2016 H. Kim, X. Lu, S. Flaxman and Y. W. Teh. **Tucker Gaussian Process for Regression and Collaborative Filtering**. *arXiv preprint arXiv:1605.07025*

## Academic Services

- 2022 **AISTATS conference reviewer**.
- 2021 **NeurIPS conference reviewer**, Top 8% reviewer award.
- 2021 **ICLR conference reviewer**.
- 2020 **NeurIPS conference reviewer**.
- 2020 **ICML conference reviewer**, Top 33% reviewer award.
- 2020 **ICLR conference reviewer**.
- 2019 **NeurIPS conference reviewer**, Top 400 reviewer award.
- 2019 **ICML conference reviewer**, Top 5% reviewer award.
- 2019 **ICLR conference reviewer**.
- 2018 **NeurIPS conference reviewer**, Top reviewer award.
- 2018 **UAI conference reviewer**.

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## Honours and Awards

- 2015 **Clarendon Fund Scholarship**, Awarded to the top 3% of graduate students across all disciplines at the University of Oxford, full funding for PhD studies.
- 2014 **Heilbronn Prize**, for outstanding academic performance, Trinity College, Cambridge.
- 2013 **Senior Scholarship**, for outstanding academic performance, Trinity College, Cambridge.
- 2012 **Junior Scholarship**, for outstanding academic performance, Trinity College, Cambridge.

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## Computing

Languages Proficient in **Python**, **C++**, **MATLAB**, **Julia**, **R**, with experience in creating R packages.

Libraries TensorFlow, PyTorch.

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## Teaching

- Oct-Dec 2016 SB1a **Applied Statistics**, Class Tutor. Ran tutorial classes.
- Oct-Dec 2015 SB1a **Applied Statistics**, Teaching Assistant. Marked student assignments.

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## Additional Skills/Activities

Languages Korean(Native), English(Fluent)  
French: A\* for A Level, then took one-month immersion course in *Besançon, France* - C1 level  
Spanish: DELE B2 - Pass

Leadership **Undergraduate President of Cambridge University Korean Society(CUKS)[2012-2013]**.

Sport Active football player with *Worcester College & Oxford University Korean Society*

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## Referees

- Prof. Yee Whye Teh (PhD Supervisor) **Department of Statistics, University of Oxford**, 24-29 St Giles, Oxford OX1 3LB, y.w.teh@stats.ox.ac.uk.
- Dr. Andriy Mnih (Manager at DeepMind) **DeepMind**, Six Pancras Square, Kings Cross, London N1C 4AG, amnih@google.com.
- Dr. Dan Alistarh (Supervisor at MSR) **Department of Computer Science, ETH**, Universitätsstrasse 6, Zürich, 8092, dan.alistarh@inf.ethz.ch.