

# Hyunjik Kim

## Education

- Oct 2015 onwards **University of Oxford**, PhD in Machine Learning.
  - Areas of Research: Scalable Probabilistic Inference, Bayesian Statistics, Deep Generative Models
  - 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

- 2016 **H. Kim, X. Lu, S. Flaxman and Y. W. Teh. Tucker Gaussian Process for Regression and Collaborative Filtering.** *arXiv preprint arXiv:1605.07025*
- H. Kim and Y. W. Teh. Scaling up the Automatic Statistician: Scalable Structure Discovery in Regression using Gaussian Processes.** *AutoML 2016 Proceedings (JMLR Workshop and Conference Proceedings)*, Oral & Travel Award at *NIPS 2016 Practical Bayesian Nonparametrics Workshop*

## Research/Work Experience

- Jun – Aug 2015 **Research Intern at Microsoft Research (MSR)**, Cambridge, UK.
  - Implemented social collaborative filtering techniques on *Delve*, Microsoft's document recommender system.
  - Carried out exploratory data analysis to investigate e.g. structures of social graphs, relation between different types of social ties and similar document consumption, informative patterns in clicks.
- 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)**

## 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.

## Computing

- Languages Proficient in **Python, C++, MATLAB, Julia, R**, with experience in creating R packages and using Rcpp.
- Libraries TensorFlow, Torch.

## Presentations

- Dec 2016 **Scaling up the Automatic Statistician: Scalable Structure Discovery in Regression using Gaussian Processes**, Oral Presentation, *NIPS 2016*, Practical Bayesian Nonparametrics workshop.
- Jun 2016 **Scalable Structure Discovery in Regression using Gaussian Processes**, Poster Presentation, *ICML 2016*, AutoML workshop.
- Dec 2014 **Bayesian Networks**, A Marriage of Probability and Graph Theory, in the context of Statistics, Part III seminar, Faculty of Mathematics, University of Cambridge.

## Academic Activities

- Sep 2016 onwards Organiser of weekly **Deep Learning Research/Reading Group**, Department of Statistics, University of Oxford
- Aug 2016 **Deep Learning Summer School**, Université de Montréal.
  - Among the 235 selected participants out of 775 applicants

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## Teaching

Oct-Dec 2015 SB1a **Applied Statistics**, Teaching Assistant. Involved marking and running tutorial classes.

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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]**, Organised:

- Social Events: Freshers' Squash, Welcoming Drinks, Annual Dinner
- Cultural Events: Korean Film Night, Participant in the Cambridge World Food Festival
- Academic Events: Talks by Korean politicians/comedians
- Recruitment Events: Samsung, LG, Hanhwa - arranged presentations

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. Dan Alistarh (Supervisor at MSR) **Department of Computer Science, ETH**, Universitätstrasse 6, Zürich, 8092, dan.alistarh@inf.ethz.ch.

Dr. Rajen Shah (Summer Research Supervisor) **Faculty of Mathematics, University of Cambridge**, Centre for Mathematical Sciences, Wilberforce Road, Cambridge, CB3 0WA, r.shah@statslab.cam.ac.uk.