

# JAMES ROBERT LLOYD

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## EDUCATION

2011 – **Trinity College, Cambridge University: PhD candidate in Machine Learning**  
Statistical machine learning – typically Bayesian and nonparametric. Research has involved networks and relational data as well as building an artificial intelligence that can do statistics.

2008 – 2009 **Trinity College, Cambridge University: M.Phil in Statistical Science**  
Exam mark: 85/100, Dissertation mark: 85/100  
Dissertation discussed applications of nonparametric regression to stock index data

2005 – 2008 **Trinity College, Cambridge University: BA Hons Mathematics**  
Part II I Part IB I Part IA I

1998 – 2005 **Portsmouth Grammar School**  
STEP Mathematics II & III (S), 4 A Levels (A), 2 AEs (Distinction), 1 AS Level (A), 10 GCSEs (A\*)

## EMPLOYMENT

**SWHERE**  
01/2015 –

- Data analysis consultant for a consumer energy provider.

**The Boston Consulting Group**  
01/2010 – 07/2011  
06/2008 – 08/2008

- Casework included working with a non-departmental public body to analyse how businesses can best assist the public to reduce their carbon emissions and writing a report about the Internet economy in the UK commissioned by Google. Sourced statistics, analysed data, produced presentations and conducted meetings with senior business executives.

**Oxeye Capital Management Ltd.**  
01/2009 – 12/2009  
09/2008 – 11/2008  
12/2006 – 04/2008

- Analyst. Researched trading strategies in various futures and options markets; mostly derived from major stock indices. Performed analyses of trading strategy performance and market dynamics. Some marketing and client exposure.

**Barclays Capital**  
12/2008 – 12/2008

- Internship in structured capital markets. Read and discussed documentation for complex international financial transaction. Presented internally to demonstrate understanding.

## PUBLICATIONS

**Lloyd J., Ghahramani Z.** (2014). *Statistical Model Criticism using Kernel Two Sample Tests*, Under review

**Lloyd J., Duvenaud D., Grosse R, Tenenbaum J, Ghahramani Z.** (2014). *Automatic Construction and Natural-Language Description of Nonparametric Regression Models*, Association for the Advancement of Artificial Intelligence (AAAI)

**Hernández-Lobato J.M., Lloyd J., Hernández-Lobato D.** (2013). *Gaussian Process Conditional Copulas with Applications to Financial Time Series*, Advances in Neural Information Processing Systems (NIPS)

**Lloyd J.** (2013). *GEFCom2012 Hierarchical Load Forecasting: Gradient Boosting Machines and Gaussian Processes*, International Journal of Forecasting

**Duvenaud D., Lloyd J., Grosse R, Tenenbaum J, Ghahramani Z.** (2013). *Structure discovery in nonparametric regression through compositional kernel search*. International Conference on Machine Learning (ICML)

**Lloyd J., Orbanz P., Ghahramani Z., Roy D.** (2012). *Random function priors for exchangeable arrays*. Advances in Neural Information Processing Systems (NIPS)

## SELECTED AWARDS AND SCHOLARSHIPS

2015 2<sup>nd</sup> place in the AutoML challenge – round 1

2012 2<sup>nd</sup> place in Global Energy Forecasting Competition – Load forecasting track

2011 PhD fees and maintenance awarded by EPSRC

2009 John Wishart prize for distinction in statistics (Statistics Laboratory, Cambridge University)

2008 M.Phil fees and maintenance awarded by EPSRC

2008 Mathison academic prize and Heilbronn mathematics prize (Trinity College, Cambridge University)

2007 Elected to senior scholarship at Trinity College

2006 Elected to junior scholarship at Trinity College

2004 Winner of National Cipher Challenge. £1000 (GCHO and University of Southampton)

## TALKS AND VISITS

Mar 2015	Amazon Machine Learning, Berlin
Feb 2015	Department of Engineering Science, Oxford
Oct 2014	Department of Statistics, Berkeley
Oct 2014	Google headquarters
Oct 2014	Facebook headquarters
Sep 2014	Xerox Palo Alto Research Centre (PARC)
Sep 2014	Department of Computer Science, Stanford
Sep 2014	Department of Brain and Cognitive Sciences, MIT
Sep 2014	School of Engineering and Applied Sciences, Harvard
Sep 2014	Department of Statistics, Columbia
May 2014	London Machine Learning Meetup
Feb 2014	Trinity College Cambridge Mathematical Society
Feb 2014	Microsoft Research, Cambridge
Dec 2013	International Conference of the ERCIM WG on Computational and Methodological Statistics
June 2013	Network Science satellite symposium, Complex Networks meet Machine Learning
June 2013	Conference on Bayesian Nonparametrics

## TEACHING

### 4<sup>th</sup> year student co-supervision with Zoubin Ghahramani (University of Cambridge)

- Nikola Mrksic – Computer Lab – Development of automatic statistician for classification
- Simon Schulz – Engineering – Investigation of graph kernels for use in chemoinformatics
- Kee Chong Tan – Engineering – Linear regression net version of automatic statistician
- Jan Soendermann – Computer Lab – Empirical investigation of tradeoff between computational and statistical efficiency
- Sien-Yi Tan – Engineering – Application of Freeze-Thaw Bayesian Optimization to kernel search
- Riaz Moola – Computer Lab – Exploration of the space of regression data sets
- Rishabh Bargava – Engineering – Exploration of the space of classification data sets

## ACADEMIC COMMUNITY

### Contributed reviews for

- Neural Information Processing Systems (NIPS)
- International Conference on Machine Learning (ICML)
- Conference on Artificial Intelligence and Statistics (AISTATS)
- Manning Publications
- European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases
- International Journal of Forecasting (IJF)

## OTHER SKILLS AND EXPERIENCE

- Some experience with Amazon Web Services including EC2, load balancing and machine learning
- Co-creator of <http://ezdrafts.com> – a drafting AI for Dota 2