

Kai Xu

PH.D STUDENT · MACHINE LEARNING

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Probabilistic Programming | Bayesian Deep Learning | Dimensionality Reduction

Education

University of Edinburgh

PH.D IN INFORMATICS: MACHINE LEARNING

- Being supervised by Dr. Charles Sutton.
- Currently working on amortized inference for Bayesian non-parametric models.

Edinburgh, UK
Sep. 2017 - PRESENT

University of Cambridge

M.PHIL IN MACHINE LEARNING, SPEECH AND LANGUAGE TECHNOLOGY

- Final average grade 72.4%.
- Thesis supervised by Prof. Zoubin Ghahramani and awarded distinction.

Cambridge, UK
Oct. 2015 - Sep. 2016

University of Liverpool

B.ENG IN COMPUTER SCIENCE AND ELECTRONIC ENGINEERING

- Final average grade 84.3%.

Liverpool, UK
Sep. 2013 - Jun. 2015

Xi'an Jiaotong-Liverpool University

B.ENG IN COMPUTER SCIENCE AND TECHNOLOGY

- Final average grade 84.3%.

Suzhou, China
Sep. 2011 - Jun. 2013

Papers

Akash Srivastava, **Kai Xu**, Michael U. Gutmann and Charles Sutton. "Ratio Matching MMD Nets: Low dimensional projections for effective deep generative models." *arXiv preprint arXiv: 1806.00101*, 2018.

Kai Xu, Dae Hoon Park, Yi Chang and Charles Sutton. "Interpreting Deep Classifiers by Visual Distillation of Dark Knowledge." *arXiv preprint arXiv: 1803.04042*, 2018.

Hong Ge, **Kai Xu**, and Zoubin Ghahramani. "Turing: Composable inference for probabilistic programming." *Artificial Intelligence and Statistics*, 2018.

Kai Xu. "Probabilistic programming in Julia." *M.Phil thesis*, August 2016.

Experience

Apple

MACHINE LEARNING INTERN

Cambridge, United Kingdom
May. 2018 - Aug. 2018

Cambridge Machine Learning Group

RESEARCH ASSISTANT

- Developed a new general probabilistic programming language named Turing.jl.
- Researched on composition of MCMC algorithms and efficient HMC variants.

Cambridge, United Kingdom
Nov. 2016 - Jul. 2017

The Brain Charity

IT MAINTAINER AND SOFTWARE DEVELOPER

- Regular maintenance of in-house computing server.
- Developed a new online room booking system.

Liverpool, United Kingdom
Aug. 2014 - Jul. 2015

Skills

Programming

Julia, Python, Java, Scala, MATLAB, Clojure, C/C++, HTML, CSS, JavaScript

Tooling

Git, Atom, Vim, Markdown, LaTeX, macOS, Linux, Android, iOS, Nginx, SQLite

Languages

Chinese, Wu Chinese, English

Honors & Awards

2017 **Ph.D Studentship**, University of Edinburgh

Edinburgh, UK

2013 **International Undergraduate Student Scholarship**, University of Liverpool

Liverpool, UK

2012 **Academic Excellence Award**, Xi'an Jiaotong-Liverpool University

Suzhou, China

Presentation

JuliaCon, 2017

Berkeley, CA, USA

PRESENTER FOR <TURING: A FRESH APPROACH TO PROBABILISTIC PROGRAMMING.>

Jun. 2017

- Introduced a new general probabilistic programming language named Turing.jl.

References

Dr. Charles Sutton School of Informatics, University of Edinburgh ✉ email

Prof. Zoubin Ghahramani Department of Engineering, University of Cambridge ✉ email