Li, Kevin Wenaling

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Education

University College London, Gatsby Computational Neuroscience Unit, PhD candidate **2015 – present**

- Supervised by Maneesh Sahani (primary) and Peter Dayan (secondary)
- Research areas: statistical inference and its neural implementation, perceptual learning, kernel methods

University of Cambridge, Trinity College Information and Computer Engineering **2010 - 2014**

- Final year Project: building a statistical model for neural spiking data, supervised by Máté Lengyel
- B.A. (1st Hon.) and M.Eng. (Exceptional), scholarship £18,510 p.a. for 4 years, College Senior Scholar
- Ranked in top 10 among ~300 students for 1st, 2nd and 4th years (3rd year at MIT)

Massachusetts Institute of Technology (1 Year undergraduate exchange) **2012 - 2013**

- GPA: 4.9/5.0, Cambridge-MIT Exchange in Electrical Engineering and Computer Science.
- Classes: Algorithm, Applied Probability, Signal Processing, Communication and Control, Web design
- Digital Image Project: Grade A+, shadow removal, more effective than published methods, taught by Prof Jae Lim
- Complex Network Project: Grade A, a model of public interest propagation, taught by Prof D. Gamarnik

Publications

- Li Wenliang, Dougal Sutherland, Heiko Strathmann, Arthur Gretton, *Learning deep kernels for exponential family densities*, submitted.
- Li Wenliang, Aaron Seitz, *Deep neural network for modeling visual perceptual learning,* J. of Neurosci. 2018
- Li Wenliang, Maneesh Sahani, Neural network trained with supervision represents uncertainty by nonlinear moments, COSYNE Abstracts 2018
- Chunfang Liu, Wenliang Li, Fuchun Sun and Jianwei Zhang, *Grasp planning by human experience on a variety of objects with complex geometry*, Intelligent Robots and Systems (IROS) 2015

Experience

Illume Research **Dec 2016 – present**

Mentor, part-time, teaching elementary machine learning and programming to high school students

Tsinghua University

Research Intern, supervised by Prof Funchun Sun at National Key Lab of Intelligent Systems **Dec 2014 – Mar 2015**

- Collaborated with post-doc on planning human-like grasps for variety objects
- Proposed non-parametric 3D object representation effective for identification and part segmentation
- Achieved human-like grasps on a variety of complex objects rarely attempted in the literature at fast speed

Microsoft Research Cambridge **July - Oct 2014**

Research Intern, supervised by Sebastian Nowozin (Machine Learning & Perception Group)

- Proposed an algorithm that extracts complex road networks from satellite images of forests
- Built a spatial marked point process model to impose spatial constraints using potential functions

Microsoft Asia R&D **Jun - Aug 2013**

Program Manager Intern, Commerce Billing team

- Collaborated with managers from Shanghai and Redmond, led a feature team of three interns to carry out tasks/features, set deliverables and milestones for a large project, reported progress to non-technical clients

MIT Jensen Research Group **Jan - May 2013**

Undergraduate researcher, embedded system in C/C++ for automated chemical process

- Object-oriented programming on Arduino microprocessor, treating processes and physical components as objects
- Designed the control signal circuit for all mechanical components including pumps, flow meters and LCD screens

Skills

- **Programming:** Python (TensorFlow, Caffe), Julia, MatLab, C/C++, Ruby, HTML/CSS, JavaScript, SQL
- **Languages**: English – fluent Mandarin – native Trained in English-Chinese translation and interpretation