Zhangdaihong (Jessie) Liu

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Education

2017 – current	**Enrichment student, The Alan Turing Institute, London, UK**
2017 – current	**Visiting PhD, Big Data Institute, University of Oxford, UK**
2015 – current	**PhD, Mathematics for Real-World Systems, University of Warwick, UK** **Research area**: Population Neuroimaging and Behaviours. Main skills: Machine learning, statistical methods, mathematical modelling, programming. **Awarded Warwick-China Joint PhD Scholarship.**
2014 – 2015	**MSc, Mathematics for Real-World Systems, University of Warwick, UK** **Individual project**: Survival Following Pancreatoduodenectomy in England: Perspectives from the HES Database (collaborated with University Hospital Birmingham). **Group project**: Using Multi-omic Cancer Data to Find Ways to Improve the Treatment of Bladder Cancer (collaborated with University Hospital Birmingham). **Classification: Distinction.**
2013 – 2014	**MSc, Mathematical Finance, Loughborough University, UK** **MSc project**: Simulating Sample Paths of Stochastic Processes Arising in Financial Engineering. Main skills: Numerical simulation, stochastic processes & programming. **Classification: Distinction.** **Awarded First-class China Partnership Scholarship.**
2012 – 2013	**Exchange year, Mathematics, Loughborough University, UK** BSc project: Spreading of Water Waves. Main skills: Mathematical modelling, differential equations, numerical simulation & programming. **Classification: First-class honours.** **Awarded First-class China Partnership Scholarship.**
2009 – 2012	**BSc: Mathematics and Applied Mathematics, Shandong University, China** Main interests: Mathematical modelling, mathematical biology, statistics, numerical analysis, ODEs, PDEs. GPA: 84.3

Computer Skills

- **Matlab**: Main tool for PhD research, 2 years+ experience.
- **C/C++**: Used on a few projects and courseworks in Bachelor and both of my Masters degrees, tutored a C++ module for one year and half.
- **R**: Used intensively on two Masters projects lasted for 6 months.
- **Python**: Used in several study groups and summer school including using Keras implementing neural networks; completed coursera course: Introduction to Data Science in Python; starting a new PhD project using Python.
- **GPU computing**: Introductory knowledge in GPU computing including using CUDA and implementing deep learning.
- **Maple, BASH, Latex & Microsoft Office**.

Academic Activities

Dec 2017	**Facilitator of The Alan Turing Institute Data Study Group** Project: Modelling and predicting spatio-temporal demand with Inmarsat.
2016 – 2017	**Chair of the Warwick Neuroimaging Statistics reading group** Help with organising seminars related to neuroimaging and statistical method on a weekly basis.
Occasionally	Organise seminars for external speakers in the department of Computer Science. Present research project at departmental open days.

Working Experience

2016 – current	**Associate Tutor, University of Warwick** Module names: C++ for Quantitive Finance (Masters module of Warwick Business School); Digital Communication and Signal Processing (Second-year module of Computer Science); Quantitive Analysis for Management I & II (First-year modules of Warwick Business School).
Aug – Sep 2013	**Internship at China Construction Bank Corp. Jinan Licheng Sub-branch, Jinan, China** Position: Company business department. Main work: Analysing financial reports; managing the client information database and visiting clients.

Talks and Presentations

2015 – 2017	Warwick Neurostats reading group: I have given 5 talks in this seminar series. Details of the talks: `http://www2.warwick.ac.uk/fac/sci/statistics/staff/academic-research/nichols/research/neuro-stat`
May 2016	Warwick Complexity Science annual retreat: Three Minute Thesis (3MT) on links between human behaviour and brain functional connectivity.
May 2015	Warwick Complexity Science annual retreat: Poster presentation on group project entitled 'Using Multi-omic Cancer Data to Find Ways to Improve the Treatment of Bladder Cancer'.

Conferences and Meetings

Jun 2018	Organization for Human Brain Mapping Annual Meeting: Abstract entitled 'Factors Influencing the Stability of CCA on Neuroimaging and Behavioural Data' submitted.
Jun 2017	Organization for Human Brain Mapping Annual Meeting: Poster presentation entitled 'Improving Stability of Imaging-Behavioral CCA with Supervised Dimension Reduction'.
Mar 2016	EPSRC meeting: Structured Healthcare Data Mining for Neuroscience Patient Stratification and New Therapeutic Target Discovery.
Nov 2015	Pancreatic Society Annual Meeting: Abstract entitled 'Analysis of the HES database reveals a dramatic reduction in 90 day mortality following pancreaticoduodenectomy over the last 12 years' accepted.

Paper Under Review

2017	*Ninety day mortality following pancreatoduodenectomy in England: has the optimum centre volume been identified?* (co-first author). HPB.

Workshops & Study Groups

Nov 2017	Dell-sponsored NVidia CUDA and deep learning workshop. Big Data Institute, University of Oxford, UK.
Sep 2017	European Study Group with Industry 130. University of Warwick, UK. Project: Measuring Vibrations from Video Feeds.
May 2017	The Alan Turing Institute Data Study Group, London, UK Project: Clustering of mobile game users and prediction of cluster transition with Samsung.
Mar 2017	BrainHack Warwick. University of Warwick, UK.
Oct 2016	OxWaSP symposium: New Statistical Method for Large Data. University of Warwick, UK.
Apr 2016	European Study Group with Industry 116. Durham University, UK. Project: Understanding the accuracy of pre-symptomatic diagnosis of sepsis.

Interests

- Bridge playing: Participated in The 9th China University Games and many other local competitions.
- Piano and keyboard playing: Passed China amateur grading test level 10 for keyboard and level 8 for piano.
- Badminton playing: Participated in many university competitions.
- I also enjoy doing weight lifting, baking and am-dram.