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 CDT, University of Warwick, UK**
	Research area: Computational Neuroimaging and Behaviours.
	Summary: Apply machine learning and statistical methods to explore associations between neuroimaging and behavioural data.
	Awarded Warwick-China Joint PhD Scholarship.
2014 – 2015	**MSc, Mathematics for Real-World Systems CDT, 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

- **Python**: Current language for PhD research. Previously used in several study groups and summer school including using Keras implementing neural networks; completed Coursera courses: Introduction to Data Science in Python, Algorithmic Toolbox and Data Structures.

- **Matlab**: 2 years+ experience. Used on previous PhD project.

- **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.

- **GPU computing**: Introductory knowledge in GPU computing including using CUDA and implementing deep learning.

- **Cluster computing, 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

2018 – current	**Science Lead/Liaison of Turing Data Study Group, The Alan Turing Insititue** Serve as the main point of contact for data scientific topics for one or more potential partner organisations; Designing problem statements which balance practical and scientific concerns; Understanding the landscape of real-world business problems that could be addressed through data science.
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' accepted.
Jun 2017	Organization for Human Brain Mapping Annual Meeting: Poster presentation entitled 'Improving Stability of Imaging-Behavioral CCA with Supervised Dimension Reduction'. **Funded by MathSys CDT, University of Warwick and Guarantors of Brain.**
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 Accepted

2018	*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.
Jun 2017	Introduction to Machine Learning Summer School. University of Warwick, UK. `https://warwick.ac.uk/fac/sci/maths/research/events/2016-17/nonsymposium/iml`
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.