Xing Liu

Flat 4, 13 Gloucester Road, London, UK. SW7 4PP.

T: 07756176853 | E: liuxing971015@outlook.com | LinkedIn: in | Github: O | Website: •

EDUCATION

• Imperial College London

London, UK

Doctor of Philosophy; Statistics (CDT in StatML at Imperial and Oxford)

Oct 2020 - Sep 2024

• Funded by the Imperial College President's PhD Scholarship.

• University of Cambridge

Cambridge, UK

Master of Advanced Study (Part III); Mathematical Statistics; Grade: 96.1% (Pass)

Oct 2019 - Jul 2020

o Part III essay: Approximate Bayesian Computation with Optimal Transport

• Imperial College London

London, UK

Bachelor of Science; Mathematics with Statistics; 1st Class Honours (Top 5% in cohort).

Oct 2016 - Jul 2019

- Hyman Levy Memorial Prize, 2019 (awarded to one final year student of Mathematics for excellence in Statistics).
- o G-Research Ltd Prize, 2018 (awarded to students of Mathematics for academic excellence).
- o Faculty of Natural Sciences Dean's List, 2017, 2018 and 2019.

Selected Publications

- X Liu, A Duncan, A Gandy (2023). Using Perturbation to Improve Goodness-of-Fit Tests based on Kernelized Stein Discrepancy. ICML 2023.
- X Liu, H Zhu, J-F Ton, G Wynne, A Duncan (2022). Grassmann Stein Variational Gradient Descent. AISTATS 2022.

RESEARCH EXPERIENCE

• Approximate Bayesian Computation with Optimal Transport

Cambridge, UK

Part III Essay; advised by Dr. Sergio Bacallado.

Feb 2020 - May 2020

o Approximate Bayesian Computation (ABC), Optimal Transport, Maximum Mean Discrepancy, KL-Divergence.

• Predicting Sepsis at Triage

Toronto, Canada

Summer Research Programme; supervised by Dr Anna Goldenberg and Mr Erik Drysdale.

Jul 2019 - Aug 2019

o Natural Language Processing, BERT, medical triage; in collaboration with the SickKids Hospital, Toronto, Canada.

Internship Experience

• Meta

London, UK

 $Research\ Scientist\ Intern$

Jun 2022 - Sep 2022

- Worked on multi-task active learning for improving ads ranking models.
- JPMorgan Chase & Co.

London, UK

Off-Cycle Intern in Quantitative Research and AI & Machine Learning Programme

 $Jul\ 2020\ -\ Oct\ 2020$

• Worked on discriminant analysis of equities data and liquidity analysis of fixed income using Random Forest.

Extracurricular Activities

• Bridges for Enterprise

Cambridge, UK

Mentor and Global Analytics and Algorithm Manager

Dec 2020 - Present

Led student teams and worked on MLOps (using MLflow and Microsoft Azure) and Natural Language Processing.

• Imperial Mathematics Competition Committee

London, UK

Co-Founder and Senior Event Coordinator

May 2017 - May 2019

• Led the publicity team and established partnerships with Maths societies from 11 UK universities within a month.

SKILLS AND COMPETENCIES

- Languages: Chinese Mandarin (Native); English (Professional); French (Basic).
- **Programming**: R, Python, PyTorch, TensorFlow, MATLAB (Proficient); Unix, MLflow (Intermediate); C++ (Elementary).