# Kai Zhi TEH

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## Education

**PhD Statistical Science** - University College London 2022-

Working on graphical causal inference.

**MEng Engineering Science** - St Peter's College, University of Oxford 2017-2021

First class classification.

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|---|---|
| 2020-2021 | Computer Vision, Machine Learning, Optimisation, Systems Control and Dynamics.<br>4th Year Research Project<br>Graph Compression |
| 2019-2020 | Control Systems, Signal Processing, Software Engineering, Bio-mechanics and Bio-medical.<br>3rd Year Group Project<br>Advanced Photonics Manufacturing Platform (adaptive optical confocal microscopy) |

## Experience

**University College London, UK** Feb 2022-
Postgraduate Teaching Assistant

Conducting undergraduate tutorials, demonstrations and marking exercises.

Modules include : STAT0002(Introduction to Probability and Statistics)
STAT0007(Stochastic Processes)
BIOS0019 (Life Sciences Foundation)

**Dell-Oxford Artificial Intelligence Society Summer Project** Jul 2021

Implementing reinforcement learning approaches to Dell business cases of selling technology as a service, particularly product-seller interaction.

Collaborated with business team of the project to produce business analytics of the project.

**St Peter's College, University of Oxford, UK** Feb 2020
Open Day Student Outreach Helper

Guiding A-Levels students around campus, and answering questions about life in University.

**SingHealth Duke-NUS Institute of Precision Medicine, Singapore** Jul-Aug 2019
Research Intern

Implementing LD Pruning on genotype samples.

Expanding upon previous year's work by verifying a recent correlation study between SNP (Single Nucleotide Polymorphism) and telomere length amongst Singaporean Chinese.

**Oxford Thermofluids Institute, University of Oxford, UK** Sep 2018
Software Intern

Fixing crash and reboot issues on engine temperature data measurement software.

Learning the practicalities of serial data communication through Python.

**SingHealth Duke-NUS Institute of Precision Medicine, Singapore** Jul-Aug 2018
Research Intern

Implementing LMM (Linear Mixed Modelling) on genotype data on phenotype traits.

Implementing statistical tests (KS-Tests) on correlation data to be compared to previous studies.

## Publications

### Published

**Teh, K.Z.**, Sadeghi, K. & Soo, T. Localised natural causal learning algorithms for weak consistency conditions. In: Proceedings of the 40th Conference on Uncertainty in Artificial Intelligence, to appear. arXiv.2402.14775, 2024.

### PrePrints/Work in Progress

**Teh, K.Z.**, Sadeghi, K. & Soo, T. A General Framewok for Constraint-based Causal Learning, submittted to Scandinavian Journal of Statistics. arXiv:2408.07575, 2024.

## Presentations

### Posters

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| Jul 2024 | Localised Natural Causal Learning under weak Conditions, **2024 Conference on Uncertainty in Artificial Intelligence**, Barcelona |
| Apr 2024 | A General Framework for Constraint-based Causal Learning, **European Causal Inference Meeting 2024**, Copenhagen |

### Talks

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| May 2024 | Relaxing the Faithfulness Assumption in Causal Inference, **UCL Statistical Science PhD Seminars**, London |
| Dec 2023 | A General Framework for Causal Learning Algorithms, **2023 IMS International Conference on Statistics and Data Science**, Lisbon |
| Sep 2023 | The role of ordering in Causal Inference, **RSS International Conference 2023**, Harrogate |

## Organisational Duties

### UCL-ELLIS CSML Seminar Series 2022-

Invited and organised academic speaker seminars in computational statistics and machine learning.
`https://ucl-ellis.github.io/jt_csml_seminar_home/`

### Oxford Artificial Intelligence Society Committee 2017-2020

Hosted speaker events from corporations and academics in AI.
`https://tinyurl.com/wjk4g5m`
`http://tiny.cc/h2ngaz`

## Awards

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| 2022-2025 | UCL Postgraduate Teaching Assistant Studentship |
| 2017-2021 | Verdant Foundation - Cheng Kin Ku Scholarship |

## Relevant Skills

### Language

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| English | Fluent |
| Mandarin | Native |
| Malay | Grade A Proficiency in Malaysian O Levels (SPM) |
| Cantonese | Conversational |

### IT

Programming
- Matlab
- Python

Documentation
- Excel
- LaTeX