MUFENG TANG

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EDUCATION

University of Oxford — Oxford, UK
DPhil (PhD) Computational Neuroscience — *2021 - 2025 (expected)*

University of Chicago — Chicago, IL
MS Statistics, **GPA:3.8/4.0** — *2019 - 2021*

University College London — London, UK
BASc Science and Engineering, **First Class Honours** — *2016 - 2019*

RESEARCH EXPERIENCE

University of Oxford, Brain Network Dynamics Unit — Oxford, UK
DPhil Student, with Prof. Rafal Bogacz — *Sep 2021 - present*

- Currently working on predictive coding models for associative memory in the hippocampus, and their relationships with classic memory models such as the Hopfield Networks.

University of Chicago, Neuroscience Institute — Chicago, IL
Student Researcher, with Prof. Jason MacLean — *Aug 2020 - Oct 2021*

- Worked on recurrent spiking neural network models for neo-cortical computations, preceded with a convolutional neural network trained to model the pre-processing of natural movies by the visual cortex.

University of Chicago, Department of Statistics — Chicago, IL
Student Researcher, advised by Prof. Yali Amit — *June 2020 - Sep 2021*

- Worked on self-supervised neural networks with localized learning rules and objective functions as a biologically plausible model of learning in the brain.

PUBLICATIONS/PREPRINTS

Tang M, Yang Y, Amit Y. Biologically Plausible Training Mechanisms for Self-Supervised Learning in Deep Networks. *Frontiers in Computational Neuroscience*. 2022 Mar 21. [URL]

COMPETITIONS

Kaggle ASHRAE Great Energy Predictor, Silver Medal (among 3,600 teams)
Kaggle Competition — *Dec 2019*

AWARDS AND SCHOLARSHIPS

University of Oxford, **St Cross E.P. Abraham Scholarship £15,000/annum** — *Sep 2021*
University of Chicago, **tuition scholarship for academic excellence $5540/quarter** — *July 2020*
University of Chicago, **tuition scholarship $4610/quarter** — *July 2019*

TEACHING EXPERIENCE

Worked as a TA for **STAT25025 Machine Learning and Large-scale Data Analysis** at the University of Chicago, Spring 2021.

SKILLS

Programming Languages and Frameworks
Python (PyTorch, Tensorflow, Scikit-learn), R, Matlab, Java, CSS, HTML