Charlie B. Tan

Education

University of Oxford   Oct 2023 - Present
DPhil Computer Science
Supervised by Prof. Michael Bronstein and Dr. Alexander Tong
Funded by Departmental Scholarship

University of Cambridge   Oct 2022 - Jun 2023
MPhil Advanced Computer Science
Pass with Distinction - **78%**
Supervised by Prof. Ferenc Huszár
Funded by Departmental Award

University of Bristol   Sep 2019 - Jun 2022
BEng Electrical and Electronic Engineering
First Class Honors - **82%** - **Ranked #1 in Department**

Publications and Preprints

Amortized Sampling with Transferable Normalizing Flows   NeurIPS 2025 (Poster)
Charlie B. Tan, Majdi Hassan*, Leon Klein, Saifuddin Syed, Dominique Beaini, Michael M. Bronstein, Alexander Tong, Kirill Neklyudov*

Scalable Equilibrium Sampling with Sequential Boltzmann Generators   ICML 2025 (Poster)
Charlie B. Tan, Avishek Joey Bose*, Chen Lin, Leon Klein, Michael M. Bronstein, Alexander Tong*

Protein Sequence Modelling with Bayesian Flow Networks   Nature Communications 2025
Timothy Atkinson, Thomas D. Barrett*, Scott Cameron, Bora Guloglu, Matthew Greenig, Louis Robinson, **Charlie B. Tan**, Alex Graves, Liviu Copoiu, Alexandre Laterre*

Beyond the Boundaries of Proximal Policy Optimization   *Preprint*
***Charlie B. Tan**, Edan Toledo, Benjamin Ellis, Jakob Nicolaus Foerster, Ferenc Huszár*

On the Limitations of Fractal Dimensions as a Measure of Generalization   NeurIPS 2024 (Poster)
Charlie B. Tan, Inés García-Redondo*, Qiquan Wang*, Michael M. Bronstein, Anthea Monod*

Geodesic Mode Connectivity   ICLR 2023 TinyPapers (Oral)
***Charlie B. Tan**, Theodore Long, Sarah Zhao, Rudolf Laine*

Experience

Mila — Québec Artificial Intelligence Institute   *Mar 2025 - Present*
Visiting Researcher, Hosted by Prof. Kirill Nekliudov

InstaDeep   *May 2024 - Oct 2024*
PhD Research Intern — Generative Modeling for Biology

Visual Information Laboratory, University of Bristol   *Jun 2021 - Sep 2021*
Undergraduate Research Intern — Generative Modeling for Visual Media

Teaching

Department of Computer Science, University of Oxford   *Oct 2023 - Present*
Demonstrator
Modules: Machine Learning, Geometric Deep Learning

Department of Electrical and Electronic Engineering, University of Bristol   *Sep 2020 - Jan 2022*
Teaching Assistant
Modules: Linear Circuits, Electronics I, Digital Circuits and Systems