

Anya Sims

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Education

- PhD in Machine Learning and Modern Statistics – University of Oxford Sept 2022–2026
Member of the StatML CDT and OxCSML group
Supervised by Prof. Yee Whye Teh
- MEng in Information and Computer Engineering – University of Cambridge Sept 2018–2022
BEng First Class with Distinction (ranked 5/288)
Department prize for best 3rd year project
Top ranked final exam performance in Information Engineering Instrumentation and Control area
MEng First Class with Distinction (ranked 8/261)
Received Distinction for dissertation – Supervised by Prof. Phil Woodland
Several Engineering Department and Jesus College Cambridge awards/scholarships each year

Research Experience

- PhD Publication Project 2023
“RAVL: Value Learning for the Edge-of-Reach Problem in Model-Based Offline Reinforcement Learning”
Supervised by Prof. Yee Whye Teh. In collaboration with Cong Lu.
NeurIPS 2023 Agent Learning in Open-Endedness Workshop
Under review at ICLR 2024
- StatML CDT Mini-Project 1 of 2 2023
Investigating plasticity loss and the effects of non-stationary training in deep neural networks
Supervised by Prof. Yee Whye Teh and Chris Gamble (deepmind)
- StatML CDT Mini-Project 2 of 2 2023
Sphering transformations for stable equivariant normalization in graph neural networks
Supervised by Prof. Yee Whye Teh. In collaboration with Sheheryar Zaidi.
- Research Placement – University of Cambridge Summer 2022 (8 weeks)
Identifiable variational autoencoders for disentangled causal representation learning
Supervised by Prof. José Miguel Hernández-Lobato. In collaboration with Wenlin Chen.
- MEng Dissertation – University of Cambridge Sept 2021–2022
End-to-End Speech Recognition using Neural Transducers
Developed more efficient method of graph-based decoding for speech recognition in transducer language models.
Supervised by Prof. Phil Woodland. In collaboration with Tony Zheng.

Industry Experience

- Software Engineering Intern - Graphcore Summer 2021 (10 weeks)
Worked on a team within the AI Applications Group to implement an extensive codebase demonstrating several image recognition benchmarks on Graphcore’s IPU in TensorFlow2. This involved coordinating loading of different stages of the model onto different IPU processing cores to maximize training and inference efficiency.
- Machine Learning Mentorship – Featurespace Summer 2020 (10 weeks)
Chose to work on abstract reasoning using deep learning (see Kaggle Abstraction and Reasoning Challenge)
- Software Engineering Intern – Softwire Dec 2019
Website development – Worked primarily on asynchronous API calls component (using Javascript and React)
- Data Analytics Intern – Infosys Summer 2019 (10 weeks)
Reproduced results from several recent papers on aspect-based sentiment analysis (using Tensorflow and Keras)

Other

- Languages: Python, C++, Bash
Frameworks: PyTorch, Tensorflow
Organizational/Teaching roles: Cambridge Windsurfing Secretary (2020-2022)
Volunteer secondary school maths tutor (2018-2019)