Tom Sherborne

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RESEARCH   SEMANTIC SCHOLAR

Summary

- Finalising a PhD in NLP researching cross-lingual transfer and multilinguality in structured prediction tasks. Four first author papers in ACL, EMNLP, and TACL with completion and viva in early 2024.

- Eight years experience in NLP research including cross-lingual transfer, machine translation evaluation, and multimodal generative models. Recent work focuses on multi-domain representation alignment using latent variables, optimization algorithms for domain adaptation, and parallel pre-training for large language models.

Education

2019 - 2024	**PhD** Computer Science	University of Edinburgh
	Thesis: Cross-lingual Transfer Through The Lens Of Semantic Parsing	**Submission**: 01/24
	Advisor: Mirella Lapata	
	Low resource cross-lingual transfer for semantic parsing and structure prediction. First author papers modeling machine translation, zero-shot transfer, meta-learning and optimal transport over latent variable models.	
2018 - 2019	**MSc(R)** Data Science	University of Edinburgh
	Thesis: Bootstrapping a Crosslingual Semantic Parser	**Award**: DISTINCTION (79%)
	Advisor: Mirella Lapata	
2017 - 2018	**MPhil** Advanced Computer Science	University of Cambridge
	Thesis: Evaluating Image Description Systems with Truth-Conditional Semantics	**Award**: DISTINCTION (85%)
	Advisor: Ann Copestake	
2013 - 2017	**MEng** Electronic Engineering	University College London
	Undergraduate Bachelor & Master Combined Degree Program	**Award**: 1ST HONS (84%)
2015 - 2016	Columbia University — Exchange Student (GPA: 3.84)	

Employment

Jan - Now *2024*	**University of Edinburgh** — Research Associate Latent Variable Models for Cross-lingual Information Retrieval with Mirella Lapata.	
Apr - Oct *2023 2023*	**Allen Institute for AI** — AllenNLP Research Intern Cross-lingual and cross-domain optimization & training dynamics with Hao Peng and Pradeep Dasigi.	
Jun - Sep *2018 2018*	**Apple** — Siri Machine Learning Intern Cross-lingual spoken language understanding & sequence tagging with Diarmuid Ó Séaghdha.	

Recent Publications

Preprint	Exploring the Limits of Massively Embarassingly Parallel Pre-Training Clara Na, Ian Magnusson, Ananya Harsh Jha, **Tom Sherborne**, Pradeep Dasigi, Jesse Dodge and Emma Strubell Work in progress to submit to ACL 2024
Preprint	How To Train Your (Compressed) Large Language Model Ananya Harsh Jha, **Tom Sherborne**, Evan Pete Walsh, Dirk Groeneveld, Emma Strubell and Iz Beltagy Work in progress to submit to ACL 2024
ICLR24	TRAM: Bridging Trust Regions and Sharpness Aware Minimization **Tom Sherborne**, Naomi Saphra, Pradeep Dasigi and Hao Peng Accepted to ICLR 2024 (Spotlight, Top 5%)
TACL23	Optimal Transport Posterior Alignment for Cross-lingual Semantic Parsing **Tom Sherborne**, Tom Hosking and Mirella Lapata Transactions of the Association for Computational Linguistics (2023) Vol. 11: 1432–1450.
ACL23	Extrinsic Evaluation of Machine Translation Metrics Nikita Moghe, **Tom Sherborne**, Mark Steedman and Alexandra Birch Proceedings of ACL 2023, **Outstanding Paper Award**
TACL23	Meta-Learning a Cross-lingual Manifold for Semantic Parsing **Tom Sherborne** and Mirella Lapata Transactions of the Association for Computational Linguistics (2023) Vol. 11: 49–67.

Skills & Professional Service

TECHNICAL	5+ years: Python (NumPy, SciPy, Pandas, PyTorch), Git, Bash/UNIX, Slurm, LaTeX.
	1+ years: SQL, Java, C++, Assembly.
REVIEWER	JMLR, ACL & ARR, EMNLP, NeurIPS, ICML. ICLR22 highlighted reviewer, ACL23 best reviewer.