# TOM SHERBORNE

#### **SUMMARY**

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RESEARCH SEMANTIC SCHOLAR

- Finalizing a PhD in NLP researching cross-lingual transfer and multilinguality in structured prediction tasks. Four first author papers in ACL, EMNLP, and TACL with expected completion in January 2024.
- Seven years experience in NLP research including cross-lingual transfer, machine translation evaluation, and multimodal generative models. Recent work focuses on multilinguality using latent variables, optimization algorithms for domain adaptation, and parameter compression for large language models.
- Pursuing an industry role for research in expanding NLP to new languages & communities, model efficiency, and theoretical & empirical analysis of optimization.

## **EDUCATION**

2019 - Now	PhD Computer Science	University of Edinburgh
	Thesis: Cross-lingual Transfer Through The Lens Of Semantic Parsing	Completion: 01/24 (expected)
	Advisor: Mirella Lapata	
	Low resource cross-lingual transfer for semantic parsing and structure prediction.	
	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
2019 2019	Undergraduate Bachelor & Master Combined Degree Program	Award: 1st Hons (84%)
2015 - 2016	Columbia University – Exchange Student (GPA: 3.84)	
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#### **EMPLOYMENT**

Apr Oct.	Allen Institute for AI — AllenNLP Research Intern	
2023 2023	Cross-lingual and cross-domain optimization & training dynamics with Hao Peng and Pradeep Dasigi.	
	University of Edinburgh — Informatics Teaching Assistant Teaching Assistant for Deep Learning & Natural Language Processing class for 200+ students. Lead Instructor for GPU Programming and Cluster Training using PyTorch and Slurm.	
-	Apple — Siri Machine Learning Intern Cross-lingual spoken language understanding & sequence tagging with Diarmuid Ó Séaghdha.	

## **RECENT PUBLICATIONS**

Preprint	TRAM: Bridging Trust Regions and Sharpness Aware Minimization  Tom Sherborne, Naomi Saphra, Pradeep Dasigi and Hao Peng  ICLR 2024 submission under review
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, 上下X.		
1+ years: SQL, Java, C++, Assembly.		
REVIEWER   JMLR, ACL & ARR, EMNLP, NeurIPS, ICML. ICLR22 highlighted reviewer, ACL23 best reviewer.		
Volunteer   ACL2020, ACL2021, EMNLP2021, ACL2023.		