# TOM SHERBORNE

**SUMMARY** 

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HOMEPAGE tomsherborne.github.io
RESEARCH SEMANTIC SCHOLAR

- 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. machine translation, zero-shot transfer, meta-learning and optimal transport over |                               |
| 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 Advisor: Ann Copestake   | Award: Distinction (85%)      |
| 2013 - 2017 | MEng Electronic Engineering  | University College London     |
|             | Undergraduate Bachelor & Master Combined Degree Program  | <b>Award</b> : 1st Hons (84%) |
| 2015 - 2016 | Columbia University – Exchange Student (GPA: 3.84)   | ` ,                           |

#### **EMPLOYMENT**

| Jan - Now<br>2024 | University of Edinburgh — Research Associate<br>Latent Variable Models for Cross-lingual Information Retrieval with Mirella Lapata.                    |
|-------------------|--|
| •                 | Allen Institute for AI — AllenNLP Research Intern<br>Cross-lingual and cross-domain optimization & training dynamics with Hao Peng and Pradeep Dasigi. |
| - ,               | Apple — Siri Machine Learning Intern<br>Cross-lingual spoken language understanding & sequence tagging with Diarmuid Ó Séaghdha.                       |

### **RECENT PUBLICATIONS**

| RECENT P | UBLICATIONS  |
|----------|--|
| Preprint | Exploring the Limits of Massively Embarassingly Parallel Pre-Training Clara Na, Ian Magnusson, Ananya Harsh Jha, <b>Tom Sherborne</b> , Pradeep Dasigi, Jesse Dodge and Emma Strubell Work in progress to submit to ACL 2024 |
| Preprint | How To Train Your (Compressed) Large Language Model<br>Ananya Harsh Jha, <b>Tom Sherborne</b> , Evan Pete Walsh, Dirk Groeneveld, Emma Strubell, Iz Beltagy<br>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  |
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## SKILLS & PROFESSIONAL SERVICE

Tom Sherborne and Mirella Lapata

TACL23

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

Transactions of the Association for Computational Linguistics (2023) Vol. 11: 49-67.

Meta-Learning a Cross-lingual Manifold for Semantic Parsing