

# Felix Drinkall

DOCTORAL RESEARCHER · UNIVERSITY OF OXFORD  
Zürich, Switzerland

*PhD Candidate (Machine Learning), University of Oxford. Researching NLP for forecasting in dynamic settings: representation learning, knowledge editing, and leakage mitigation. Reviewer (ACL/EMNLP/NAACL/EACL/COLING).*

## Education

### University of Oxford

Oxford, United Kingdom

PHD IN MACHINE LEARNING

October 2021 – November 2025

- NLP for predictive tasks in dynamic environments:
  - Multimodal forecasting:** designed state-of-the-art transformer-based representation learning pipelines that outperformed prior techniques by 8% in downstream forecasting tasks.
  - Pre-trained point-in-time LLMs:** pre-trained 12 temporally controlled LLMs from scratch; showed statically trained LLMs achieved 28%–44% lower perplexity scores than our models even after temporal adaptation, exposing limits of current mitigation techniques.
  - Knowledge editing:** implemented knowledge-editing methods to understand the post-edit numerical reasoning abilities of LLMs. Ultimately showed that knowledge editing significantly falls short by ~15% of in-context methods in this problem setting.
  - Market–language causal dynamics:** modelled bidirectional causal effects between market conditions and language using time-series models built on top of LLM-derived representations.
- Member of the Oxford-Man Institute of Quantitative Finance and the Oxford e-Research Centre.
- Part-time initially, while I rowed professionally, attempting to make the 2024 Olympics.
- Selected papers – **NAACL '22 & Findings '24; ACL Findings '25; FinNLP-COLING '25; SSRN '24 (top-10 most downloaded in past year):**
  - DyNumQA: Assessing Numerical Knowledge Editing through Multihop Reasoning – under review
  - Forecasting COVID-19 Caseloads Using Unsupervised Embedding Clusters of Social Media Posts – NAACL 2022
  - Time Machine GPT – NAACL Findings 2024
  - Stories that (are) Move (d by) Markets: A Causal Explanation of Market Shocks and Sem. Shifts across Diff. Part. Gr. – ACL Findings 2025
  - (Re)Visiting Large Language Models in Finance – SSRN 2024 (under review; top-10 most downloaded in last 12 months)

MENG IN ENGINEERING SCIENCE (UNIVERSITY OF OXFORD)

September 2017 – June 2021

- First-Class Honours**
- Recipient of the Vincent's Fernside Scholarship** for academic and sporting success at Oxford University.
- 84% in my Master's Thesis (Edgell Sheppee Prize 2021):** "Forecasting COVID-19 Caseloads using Social Media Posts"
- Courses: Machine Learning; Machine Vision and Robotics; Medical Imaging and Informatics; Advanced Probability, Systems and Perturbation Methods; Advanced Mathematics.

## Experience

### Alan Turing Institute

London, UK

RESEARCHER

February 2023 – July 2024

- Researcher for the Narrative Detection and Tracking team. Developed and trained models to test the feasibility of fine-grained narrative detection, tracking, and forecasting in online communities for the DSTL programme.

### PayDay Records

London, UK

RESEARCH ENGINEER

Jul 2023 – Mar 2024

- Owned the full stack for an ML-driven A&R platform: codebase, data pipelines, feature engineering, training and deployment of time-series classification models, and a UI to surface fast-growing unsigned tracks.
- Shipped a daily A&R signal (email + Spotify playlist) used by the team, turning theoretical understanding into a product.

### GB Rowing Team

Reading, UK

PROFESSIONAL ATHLETE

November 2017 – July 2023

- Elite team environment: sustained high performance under pressure; rapid and honest feedback; resilience in the face of setbacks; discipline alongside academic workload.

### Rahn+Bodmer

Zurich, Switzerland

QUANTITATIVE INVESTMENT ANALYST INTERN

July 2020 – August 2020

- Engineered a portfolio optimisation tool incorporating user-defined risk parameters and real-time market data; the tool was ultimately integrated into the company's financial analysis system.

## Skills and achievements

### Technical

- Advanced knowledge of Python** (PyTorch and Transformers); pre-trained LLMs using multi-GPU distributed systems.
- Tutor for the Introduction to NLP** course for visiting Stanford students; supervised thesis projects to completion.
- Reviewer for the ACL, EMNLP, NAACL, EACL and COLING conferences.**

### Other

- Junior (2017) and U23 (2019, 2021) **World Rowing Champion**; Competed in the Oxford-Cambridge Boat Race.
- UK Citizen and Swiss B permit (no sponsorship needed).