

# Seraphina Goldfarb-Tarrant

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## SUMMARY

- NLP (Natural Language Processing) researcher in: [Multilinguality](#), [Fairness](#), [Causality](#), [Unsupervised Learning](#), [Natural Language Generation](#), [Information Retrieval](#).
- 4.5 years at Google as a global Product Manager & programmer in adTech. Joined a recently acquired team of five, helped grow the product to \$1 billion annual revenue and 1 million queries-per-second.
- 1.5 years at sea teaching disadvantaged teens teamwork via sailing.

## EDUCATION

### U. of Edinburgh, Edinburgh — *PhD Candidate (Dissertation Phase) in Informatics: Institute for Language, Cognition, and Computation*

September 2019 - 2022 (expected), advised by Adam Lopez

Research in Multilingual NLP, Fairness and Transparency.

### U. of Washington, Seattle — *MS in NLP/Computational Linguistics*

September 2017 - June 2019, GPA: 3.97

Projects: classification, sequence-tagging, language models, linguistics, parsing, topic models, automatic summarization, information retrieval

### UCLA, Los Angeles — *BA Ancient Greek, Minor in Film*

Grad date: September 2010, GPA 3.98

UCLA Honors Program, summa cum laude, Phi Beta Kappa, 5 scholarships

## PROFESSIONAL EXPERIENCE

### Amazon, Barcelona — *Applied Science Intern*

August 2021 - Dec 2021

- Research multilingual transfer learning for sentiment analysis, paper under submission.

### Bayes Centre for DataScience, UK — *Consulting NLP Engineer*

November 2019 - Present

- Created a multilingual event and entity extraction ML system, to classify and process articles from Africa and map the spread of livestock diseases across 12 African countries. In collaboration with the Gates Foundation. Presented at a [LD4D](#) conference in Feb 2020.

### Information Sciences Institute, LA — *Visiting Researcher*

July 2018 - June 2020

- Research engineer in Narrative Generation, Human-AI interaction & DARPA NLP projects. Build novel state-of-the-art systems in PyTorch. Responsible for research experiments & authoring works for publication.

### Google, Tokyo, NYC, Shanghai — *Product Manager, AdTech*

July 2012 - Oct 2015

- Launched main product in AU/NZ, Japan, China by increasing local partner integrations by 300%, and driving localization and language detection/categorization. Developed the Asia-Pacific region to a revenue growth of 212% YoY (\$11M to \$34M).

## Programming Languages

Fluent: Python & Django

Conversational: C++, SQL

## Natural Languages

Conversational: Japanese, Spanish, Ancient Greek

## Skills

Machine Learning

Neural Networks

Jira, Git, Latex, Balsamiq, Sketch, Alexa Platform

## PROJECTS

### Interactive NLP

Built an Interactive Neural Story Writing system: [video](#), [link](#)

### Human-AI Interfaces

Collaboration with performance artists to investigate how the public views and interacts with AI systems. First shows premiered in Amsterdam and NYC (2019), in collaboration with the VALES project: [link](#)

### Excelsior Trust (non-profit)

Work on [Excelsior](#), a historic wooden 23m ship in the North Sea & Baltic, which offers team building for teens & recovering addicts.

Began as a volunteer, subsequently hired as relief Boatswain & relief First Mate, then elected to the board. 15,000 nautical miles.

### Digital Mapping of the Ancient World

Developed 3D reconstructions of Ancient Rome throughout time, to integrate a *time dimension* into Google Earth. As part of the UCLA Experiential Technologies Center, in 2010. (The Google Earth API has now been turned down, but more work done by the same lab can be found [here](#))

- PM for global relationship with Yahoo!; eliminated primary source of on-call incidents.
- PM for global Machine Learning bidding algorithm improvements, influencing 30% of revenue, and for anti-Malware features.

## Google, NYC— Technical Account Manager, AdTech

January 2011 - June 2012

- Designed custom solutions in python/django for clients responsible for 40% of product revenue.
- Organised QA (technical and user) for all releases and for migration from Amazon ec2 to Google infrastructure.

## PUBLICATIONS

*Cross-lingual Transfer Can Worsen Bias in Low-Resource Sentiment Analysis* (Under Submission), [AAACL 2022](#)  
Seraphina Goldfarb-Tarrant, Adam Lopez, Björn Ross, Roi Blanco and Diego Marcheggiani

*How Gender Debiasing Affects Internal Model Representations, and Why It Matters* [ACL 2022](#)  
Hadas Orgad, Seraphina Goldfarb-Tarrant, Yonatan Belinkov

*Intrinsic Bias Metrics Do Not Correlate with Application Bias* [ACL 2021](#)  
Seraphina Goldfarb-Tarrant, R. Marchant, R. Muñoz Sanchez, Mugdha Pandya, Adam Lopez  
[arXiv link](#), [video link](#)

*Content Planning for Neural Story Generation with Aristotelian Rescoring* [EMNLP 2020](#)  
Seraphina Goldfarb-Tarrant, Tuhin Chakrabarty, Ralph Weischedel, Nanyun Peng  
[arXiv link](#), [video link](#)

*Scaling Systematic Literature Reviews with Machine Learning Pipelines* [SDP@EMNLP 2020](#)  
Seraphina Goldfarb-Tarrant, A. Robertson, J. Lazic, T. Tsouloufi, L. Donnison, K. Smyth  
[arXiv link](#)

*Plan, Write, and Revise: an Interactive System for Open-Domain Story Generation* [NAACL 2019](#)  
Seraphina Goldfarb-Tarrant, Haining Feng, Nanyun Peng  
[arXiv link](#), [demo video](#)

## INVITED TALKS

### Invited Talks:

- Panel talk at [Gender Bias in NLP workshop](#), [ACL 2022](#), with Kai-Wei Chang, Kellie Webster, and Mark Yatskar
- *Understanding and Applying Bias Metrics for NLP Systems*, [National Research Council Canada](#), March 2022
- Panel talk at [Generation, Evaluation, Metrics \(GEM\)](#), [ACL 2021](#), with Ehud Reiter, He He, and Hady Elsahar
- *Interpretability and Reproducibility Workshop*, [Information Sciences Institute](#), Sept 2019

## TEACHING

### University of Edinburgh, Informatics:

#### Tutor:

- NLU+ (Natural Language Understanding)
- MLPR (Machine Learning Practical)

Develop Coursework (assignments, labs) for ANLP (Accelerated NLP)

Primary supervisor for Informatics MSc Student dissertations

#### UCLA:

Tutor (2008-2010):

- C++, Astronomy, Earth & Space Sciences, ESL Composition, Ancient Greek

## AWARDS

- Apple AI Fellow Nomination (5 students/year)
- First-place Alexa social bot (restaurant-recommender) in Amazon competition

## PROFESSIONAL SERVICE

Reviewer (2020 - present):

- ACL, NAACL, EMNLP, ARR
- Ethics Committee (2022 - present):
- EMNLP