ZARA SIDDIQUE

EDUCATION

Cardiff University

2021 - Present PhD, Computer Science

2020 - 2021 MSc Artificial Intelligence, Distinction

2015 - 2018 BSc Computing & Mathematics, First Class Honours

RELEVANT EXPERIENCE

Spring 2024 Machine Learning Engineer (6 month PhD Placement) Amplyfi

- Built an end-to-end pipeline for detecting and creating timelines of events using ML
- Worked on automated generative reports and cross-checking sources for factuality
- Deployed using Docker, AWS OpenSearch, Lambda and ECR

Spring 2023 Machine Learning Research Intern

Eunice Al

- Researched and built a SoTA Twitter bot detection model for the crypto industry
- Deployed using AWS EC2 and Sagemaker

Summer 2021 Machine Learning Intern

Factmata

- Integrated interpretability visualisations to existing models
- Integrated Human-in-the-Loop feedback to models using a Chrome extension
- Trained a new sentiment analysis model using HuggingFace

PUBLICATIONS

Shifting Perspectives: Steering Vector Ensembles for Robust Bias Mitigation in LLMs Zara Siddique, Irtaza Khalid, Liam D. Turner, Luis Espinosa-Anke. 2025.

Automatic Extraction of Metaphoric Analogies from Literary Texts: Task Formulation, Dataset Construction, and Evaluation

Joanne Boisson, **Zara Siddique**, Hsuvas Borkakoty, Dimosthenis Antypas, Luis Espinosa Anke, Jose Camacho-Collados. COLING 2025.

Who is better at math, Jenny or Jingzhen? Uncovering Stereotypes in Large Language Models Zara Siddique, Liam D. Turner, Luis Espinosa-Anke. EMNLP, 2024.

How Are Metaphors Processed by Language Models? The Case of Analogies

Joanne Boisson, Asahi Ushio, Hsuvas Borkakoty, Kiamehr Rezaee, Dimosthenis Antypas, **Zara Siddique**, Nina White, Jose Camacho-Collados. CoNLL, 2024.

PROJECTS

Dialz - Python package to create steering vectors

This tool allows users to create various contrastive datasets with one line, generate steering vectors for any HuggingFace model and generate model outputs based on these steering vectors. (Still in development.)

SKILLS

I have experience with the following programming languages, libraries and software:

Python PyTorch/TensorFlow AWS Docker HuggingFace Django Git HTML5/CSS3 React/Redux NodeJS Express.js MongoDB Adobe Suite

OTHER

Lead Organizer: DjangoGirls PyCon 2023, Cardiff NLP Hackathon 2022.

Organizing Committee: Cardiff NLP Workshop 2024, 2023. PyCon UK 2023, 2022.

Co-founder: Glitter Sisters (BAME LGBT+ group), Lez Read (book club), Rhetorik (sustainable clothing).

Completed Blue Dot's AI Safety Fundamentals Course. Recipient of the Master's Excellence Scholarship 2020-21.

President and 2018 BUCS Gold Medallist, Cardiff Uni Boxing Club.