

Fatma Elsafoury

Glasgow
United Kingdom
☎ 0447397955946
✉ e.fatma.e@gmail.com
📄 <https://efatmae.github.io>

My research interests are in social science computing and AI ethics. In particular, I focus in my research on hate speech detection, social bias, and fairness in natural language processing.

Research Experience

- Sep 2019 **Research associate**, *Knowledge Transfer Partnership (KTP)*, Glasgow, UK.
- Feb 2022 **Responsibilities:** Responsible of working with a business partner (SERIC systems) and a knowledge base partner (University of the West of Scotland) to build and deploy a web service that uses machine learning and natural language processing to automatically detect hate speech and abuse in social media.

Publications

- 2022 **Fatma Elsafoury**. "Darkness can not drive out darkness: Investigating Bias in Hate Speech and Abuse Detection Models". A full paper **under-review at ACL SRW workshop**.
- 2022 **Fatma Elsafoury**, Steve Wilson, Stamos Katsigiannis, and Naeem Ramzan. "SOS: Systematic Offensive Stereotyping Bias in Word Embeddings". A full paper **under-review at ACL 2022**.
- 2021 **Fatma Elsafoury**, Stamos Katsigiannis, Steve Wilson, and Naeem Ramzan. "Does BERT Pay Attention To Cyberbullying?". A short paper at **SIGIR 2021**.
- 2021 **Fatma Elsafoury**, Stamos Katsigiannis, Zeeshan Pervez, and Naeem Ramzan. "When the timeline meets the pipeline: A survey on automated cyberbullying detection". **Published in IEEE-ACCESS Journal 2021**.
- 2020 **Fatma Elsafoury**. "Teargas, Water Cannons and Twitter: A case study on detecting protest repression events in Turkey 2013". Published in **Text2Story Workshop at ECIR 2020**.
- 2017 Sarah Birch, and **Fatma Elsafoury**. "Fraud, Plot, or Collective Delusion? Social Media and Perceptions of Electoral Misconduct in the 2014 Scottish Independence Referendum". **Published in Election Law Journal 2017**.

Talks

- July 2021 "Does BERT Pay Attention To Cyberbullying?" at the **SIGIR 2021** conference.
- June 2021 "A true cyberbullying type lies in the eye of the beholder: A comparative study on detecting different types of cyberbullying using different word embeddings" at the 73rd **Language Lunch at the University of Edinburgh**.
- Nov 2020 "Does BERT pay attention to attribution?" at the 72nd **Language Lunch at the University of Edinburgh**.
- Apr 2020 "Teargas, Water Cannons and Twitter: A case study on detecting protest repression events in Turkey 2013" at the **Text2Story Workshop at ECIR 2020**.

Education

- Nov 2019 - **PhD student**, *Computer Science*, The University of the West of Scotland.
Nov 2023 Working on social biases and their influence on Toxicity and Hate Speech Detection.
Dec 2019 **MSc by Research**, *Computer Science*, University of Glasgow.
Thesis Title: Detecting Protest Repression Incidents from Tweets.
Mar 2013 **MSc**, *Geoinformatics*, Twente University, Enschede, Netherlands.
Thesis Title: Monitoring Urban Traffic Status Using Twitter Messages.
May 2008 **BSc**, *Computer and information sciences*, Helwan University, Cairo, Egypt.
Thesis Title: Personal identification through iris recognition system.

Community Service

- 2021 - Organizer of **Women_in_NLP** Talk Series which is a monthly talk series where female
Present researchers in NLP are invited to give a talk about their research and their journey in NLP. My role includes contacting and inviting the speakers, organizing the talk event, announce it, and host the talk. Since February 2021, I have hosted: **Rachael Tatman** (Rasa), **Khyathi Chandu** (Carnegie Mellon University), **Vered Schwartz** (Allen AI), **Jasmijn Bastings** (Google), and **Sabine Weber** (University of Edinburgh), **Maria Antoniak** (Cornell University), and **Alexandra Olteanu** (Microsoft Research).
- 2021 - Volunteer at the **ACL Year Round Mentorship** which is a network that helps and supports
Present junior researchers in natural language processing (NLP).
- 2020 - Volunteer at the Scottish Informatics and Computer Science Alliance (**SICSA**) **PhD Peer**
Present **Support Group** where mental support is provided to PhD students in Scottish universities by fellow PhD students. My duties include co-hosting two sessions a month to allow the students to express themselves in a safe and friendly environment.
- 2021 Volunteer at **WiML workshop at NeurIPS conference** My role was to help participants
in Gather Town virtual environment and to micro-blog about the posters and the talks presented.
- 2018 Volunteer at **Code First Girls** which is an initiative that aims at empowering women
through teaching them basic web technologies.
- 2018 Volunteer at the **Programming Workshop For Scientists In Africa (PWS Africa)**
which is an initiative to teach programming to students with less opportunities in African countries. The activities included teaching Python to undergraduate students in Ibadan University, Nigeria.

Scholarships and Funding

- 2020 **Studentship** for free registration at the **ECIR** conference (150 Euros).
- 2019 **Knowledge Transfer Partnership (KTP)** project funded by UK Research and Innovation (UKRI). The KTP project funds my PhD tuition fees, salary, hardware, travel costs, development costs, and research costs (overall project funding: 223,238.00 GBP).
- 2011 **Erasmus Munds scholarship**. The scholarship funded my MSc tuition fees, and stipend. One of only 3 women from Egypt who was selected for studying in the Netherlands (32,000 Euros).

Professional Experience

- Dec 2013 **Software Developer**, *ESRI-NEA*, Cairo, Egypt.
– Aug 2014 **Responsibilities**: Responsible of developing mapping applications using Java script and ArcGIS.

- May 2009 **Software Developer**, *ICON Technologies*, Cairo, Egypt.
– Aug 2011 **Responsibilities:** Responsible of developing web and desktop mapping applications.

Teaching Experience

- April 2019 **Lecturer (Part-time)**, *School of Computing*, Dundee University.
– Aug 2019 **Responsibilities:** I worked with Data Science MSc students where I helped students with their Programming and Machine Learning assignment and marking assignments.
Sept 2017 **Lab Assistant**, *School of Computing*, Glasgow University.
– Jan 2019 **Responsibilities:** I worked as Python and Alice lab tutor for undergraduate students and Java lab tutor for MSc students. I was involved in exam invigilation and Marking. I also supervised 2 MSc students.
Oct 2018 **Web development Tutor (Volunteer)**, *Code First Girls*, Glasgow University.
– Dec 2018 **Responsibilities:** I worked as web development tutor for female students and employees in the university of Glasgow. I was responsible for teaching HTML, CSS, JavaScript, Bootstrap, JQuery and GitHub.
July 2018 **Python Tutor (Volunteer)**, *PWS Africa*, Ibadaan University, Nigeria.
– July 2018 **Responsibilities:** I worked as Python tutor for undergraduate and MSc students at the school of Math in Ibadan university. I was responsible for preparing course material, teaching Python (Basics) and Data Science toolkit (Pandas, Numpy and Matplotlib).

Languages

Arabic, *Native Speaker*.

English, *Fluent*.

German, *A2-level(post-Beginner)*.