Fatma Elsafoury

My research interests are social science computing and AI ethics. In particular hate speech detection, social bias, and fairness in NLP.

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.

Publications

- 2021 **Fatma Elsafoury**, Steve Wilson, Stamos Katsigiannis, and Naeem Ramzan. "SOS: Systematic Offensive Stereotyping Bias in Word Embeddings". A full paper **under-review** at **ACL ARR 2021.**
- 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 2014.

Talks

- July 2021 "Does BERT Pay Attention To Cyberbullying?" at the SIGIR 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**.

Community Service

- Organizer of Women_in_NLP Talk Series which is a monthly talk series where female researchers in NLP are invited to give a talk about their research and their journey in NLP. 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 Now Volunteer at the **ACL Year Round Mentorship** which is a network that helps and supports junior researchers in natural language processing (NLP).
- 2020 Now Volunteer at the Scottish Informatics and Computer Science Alliance (SICSA) PhD Peer Support Group where mental support is provided to PhD students in Scottish universities by fellow PhD students.
 - 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

- Sep 2019 Data Scientist, Seric Systems, Glasgow, UK.
- Feb 2022 Responsibilities: Responsible of building a machine learning model to automatically detect hate speech and abuse in social media platforms and deploy the ML model as a web service.
 - 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).