

Youssef Al Hariri, PhD

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PROFILE

PhD in Informatics with a specialization in computational social science and data visualizations. Experienced in teaching data science and text technologies at undergraduate and graduate levels, and skilled in quantitative/qualitative data analysis. A published researcher with expertise in applying advanced AI and data techniques to solve real-world social challenges. A certified SAFe Lean-Agile Practitioner. Seeking an academic position to lead projects and courses that contribute to the academia in the Computer Science field.

EDUCATION

Sep 2018 - Feb 2023 **PhD in Informatics**, The University of Edinburgh, UK.

Thesis title: Religious Polarisation over Social Networks.

Sep 2017 - Aug 2018 **MSc (First Class) Artificial Intelligence** (Distinction), The University of Edinburgh, UK.

Thesis: Analysing Online Cultural Disengagement in the Arab Twittersphere.

Sep 2012 – Jul 2017 **BSc (Hons) Computer Engineering** (Excellence), Qatar University, Qatar.

Graduation Project: Signal Processing with Real-Time Response Application on FPGA SoC.

PROFESSIONAL INTERESTS

- AI Methodologies, including Machine Learning (ML) and Large Language Models (LLMs).
- Data Science and analytics
- Computational Social Science

WORK EXPERIENCE

Nov 2024 – Present **ML & AI Engineer**, Qualitrol Corporation, UK

Design and develop end-to-end generative AI tools and multimodal systems to assist engineers in system comprehension, module development, and compliance adherence. My role includes building RAG and Agent-based systems to enhance the AI generated content.

Aug 2022 - Feb 2025 **Postdoctoral Research Associate (PDRA)**, School of Informatics, University of Edinburgh

Project: **Finding Adversary Narratives: Topic and Momentum (FANToM).**

To develop an end-to-end tool that combines several state-of-the-art AI techniques to model and analyse the narratives of user interactions. The proposed projects included conducting comparative analysis of human-generated Twitter data with large datasets for sensitive topics.

Feb 2024 - Jul 2024 **University Teacher**, School of Informatics, University of Edinburgh

Prepared and delivered course material for the **Text Technologies for Data Science (TTDS)** course to MSc and UG students.

Jan 2022 - Aug 2022 **Research Fellow**, School of Social & Political Science, University of Edinburgh

Project: **Telling Good Stories.**

Collected and analysed tweets about compassion and support during the Covid-19 pandemic. Compare this social media content with long-term historical published data.

Jan 2020 - Nov 2021 **Research Assistant**, University of Edinburgh

*Worked on the **Digital Influence & Intelligence Lab** and **Huawei Social Media Perception** projects.*

Sep 2018 - Aug 2022 **Teaching Assistant**, School of Informatics, University of Edinburgh, UK

Co-supervised postgraduate students and assisted in teaching multiple courses, including **Text Technologies for Data Science**, **Accelerated Natural Language Processing (ANLP)**, and **Introduction to Java Programming**.

TALKS/LECTURES

- Social network analysis workshop, Edinburgh Future Institute, Edinburgh, Mar 2024
- Twitter Data Collection Workshop, SUNY New Paltz, NY, USA, Mar 2022
- Atheists versus Theists: Religious Polarisation in Arab Online Communities, ACM CSCW, Oct 2021

SKILLS & EXPERTISE

- **Data Science & Analysis:** Expertise in statistical data analysis, handling sensitive data, and data indexing using Solr and MongoDB. Skilled in managing real-world big data and applying quantitative and qualitative analysis techniques.
- **Computational Social Science:** Proficient in qualitative and quantitative analysis for social and political research.
- **Social Network Analysis:** Experienced in network analysis, community detection, and data visualization.
- **LLMs, ML & NLP:** Hands-on experience with ML and NLP models and libraries, including BERT, BART, LLAMA-3, Command-R, Mistral, and WizardLM-2, applied in AI-driven projects.
- **Software Development:** Skilled in system development using Python, Flask, SQL, React JS, and Node JS.
- **Data Visualization:** Expertise in visualizing data using Python libraries like Plotly, Matplotlib, Seaborn, and Altair.
- **Object-Oriented Programming:** Strong knowledge of OOP principles, primarily using Python and Java.
- **Tools & Technologies:** Experience with version control systems (Git), containerization tools (Docker and Podman), large-scale data indexing systems such as Apache Solr, and Microsoft Azure and AWS Services.
- **Teaching & Mentoring:** Proficient in teaching and assisting large classes (150+ students), and co-supervising postgraduate students.
- **Communication & Collaboration:** Strong oral and written communication skills, demonstrated through presentations, report writing, and team-based projects.
- **Work Ethic:** Certified SAFe Lean-Agile Practitioner, project-oriented, collaborative, and committed to producing quality outcomes in a team environment.

SELECTED PUBLICATIONS

1. Brownlie, J., Al Hariri, Y., & Anderson, S. (2025). **The ‘good story’ and kindness Twitter: Tales of hope and fears of dupery during Covid-19.** *The Sociological Review*, 0(0). <https://doi.org/10.1177/00380261251315231>
2. Al Hariri, Y., Chausson, S., Ross, B., and Magdy, W. (2024). *Twixplorer: An Interactive Tool for Narrative Detection and Analysis in Historic Twitter Data.* ACM, CSCW, 2024.
3. Al Hariri Y. & Abu Farha I. (2024). *SMASH at StanceEval 2024: Prompt Engineering LLMs for Arabic Stance Detection.* Arabic-NLP, ACL 2024.
4. Al Hariri Y. & Abu Farha I. (2024). *SMASH at AraFinNLP2024: Benchmarking Arabic BERT Models on the Intent Detection.* Arabic-NLP, ACL 2024.
5. Al Hariri Y., Magdy W., Wolters, M. K. (2021). *Atheists versus Theists: Religious Polarisation in Arab Online Communities.* ACM, CSCW 2021.

For a complete list of publications, please visit my webpage: <https://yalhariri.github.io>.

RESEARCH SERVICES

- Program Committee at ACL-SRW 2023, ICWSM 2024, ICWSM 2023
- Conferences reviewer at ICWSM 2023-2025, CSCW 2022~2025, CHI 2022~2024, ASONAM & MuC 2024.
- Journal reviewer at OSNEM and SNAM

AWARDS & ACHIEVEMENTS

- Extended PDRA grant, Alan Turing Institute, 2024.
- PDRA grant, Alan Turing Institute, 2023.
- PhD Scholarship, ILCC, University of Edinburgh, 2018.

LANGUAGES

- English (Fluent)
- Arabic (Native)

REFERENCES

- **Dr Walid Magdy**, Reader at the School of Informatics, University of Edinburgh, UK
Email: wmagdy@inf.ed.ac.uk
- **Dr Bjorn Ross**, Lecturer in Computational Social Science, University of Edinburgh, UK
Email: b.ross@ed.ac.uk
- **Dr Maria Wolters**, Research Group Lead, Social Computing, OFFIS Institute for Informatics, Germany.
Email: maria.wolters@offis.de