

Anastasia Giachanou

Postdoctoral researcher in Human Data Science

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SUMMARY

I am a postdoc research fellow at the Human Data Science group of Methodology and Statistics at Utrecht University with a strong interest in Applied Data Science and Applied Text Mining. Since the start of my research career I developed and evaluated different approaches with the aim to solve a wide range of prediction problems including sentiment analysis, emotion analysis, fake news detection and profiling fake news and conspiracy spreaders. Currently I am focusing on modelling information extracted from data download packages (DDPs) of users' and exploring their association with data collected from user surveys such as users' self-reported well being measures. In addition, I am exploring the application of automated text mining tools on the DDPs and developing methodologies that can increase their reliability.

PROFESSIONAL EXPERIENCE

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| Sep. 2020 - now | Postdoc Fellow Researcher
Human Data Science group, Methodology and Statistics, Utrecht University, Utrecht, the Netherlands
Responsibilities: Research on applied data science, methods to analyse bias in textual documents, develop methodologies for information extraction from data download packages, write up, publish the findings at conferences and journals, teaching and supervising B.Sc. and M.Sc. students |
| Dec. 2018 - Aug. 2020 | Postdoc Fellow Researcher
Pattern Recognition and Human Language Technology Research Center, Universitat Politècnica de València, València, Spain
Early postdoc grant on“Early Fake News Detection on Social Media” funded by the Swiss National Foundation (SNF)
Responsibilities: Research and develop methods to detect fake news online, evaluate the effectiveness of the methods, develop new data resources, supervision of a Ph.D. student working on hate speech detection, write up and publish the findings at conferences and journals |
| June 2014 - Nov.2018 | Research and Teaching Assistant
Faculty of Informatics, Università della Svizzera italiana, Lugano, Switzerland
Responsibilities: Research and develop methods on opinion/emotion analysis, tracking sentiment evolution towards specific topics, online reputation analysis, opinion retrieval, develop new data resources, data analysis, publish, teaching |
| Jan. 2011 - May 2014 | Scientific & Administrative Coordinator, IC1002 COST Action
Research Committee, Alexander Technological Institution of Thessaloniki, Greece
Responsibilities: Experimental studies on patent retrieval, patent classification, website development, administrative support at organizing meetings, publishing
Technologies used include: Java, C++, Terrier |

EDUCATION

- June 2014 - Oct. 2018 **Ph.D. in Informatics**
Faculty of Informatics, Università della Svizzera italiana (USI),
Lugano, Switzerland
Thesis: “*Tracking Opinion Evolution on Social Media.*”
Advisor: Prof. Fabio Crestani
Defence date: 16 October 2018
- Sept. 2009 - Dec. 2010 **M.Sc. in Informatics**
School of Computing Science, University of Glasgow, Glasgow,
United Kingdom
Thesis: “*Comparison between user-generated and automatic graph
layouts by SketchNode extension.*”
Grade: Merit, B1
- Oct. 2004 - March 2009 **B.Sc. in Informatics** (4-year degree)
School of Informatics, Aristotle University of Thessaloniki,
Thessaloniki, Greece

RESEARCH PROJECTS

- Dec. 2018 - July 2020 Early postdoc fellowship by Swiss National Foundation on the project
“*Early Fake News Detection on Social Media*”

TEACHING

- **August 2021, Data Science: Programming with Python, Summer School, Utrecht University:** Summer school lecturing on Python practices and libraries used for data analysis and visualisation such as pandas, numPy and Matplotlib together with Dr. Anna-Lena Lempracht from Utrecht University
 - **Fall 2021 and 2020 Data wrangling and data analysis, M.Sc., Faculty of Science, Utrecht University:** Participating as one of the instructors, presenting practicals with R for visualisation and exploratory data analysis, missing data and imputation and clustering
- Served as Teaching Assistant in the following courses:
- **July 2021, Applied Text Mining with Python, Summer School, Utrecht University:** Teaching assistant during the applied text mining course lectured by Dr. Ayoub Bagheri from Utrecht University. I was mainly responsible to help students during practicals.
 - **July 2021, Data Analysis, Summer School, Utrecht University:** Teaching assistant during the data analysis course lectured by Dr. Maarten Cruyf from Utrecht University. I was mainly responsible to help students during practicals.
 - **Spring 2018, Business Intelligence, M.Sc., Faculty of Informatics, USI:** Responsible for labs on WEKA, prepare material for WEKA labs, support on designing and supervising the projects
 - **Fall 2017/18, Programming Fundamentals, 1st year B.Sc., Faculty of Informatics, USI:** Responsible for the course projects, grading the course projects, labs on Racket programming language
 - **Fall 2016/17, Human-Computer Interaction Design, M.Sc., Faculty of Informatics, USI:** Responsible for the course projects, grading the course projects
 - **Spring 2016, Data Analytics, M.Sc., Faculty of Informatics, USI:** Responsible for labs on R, designing and supervising the projects, grading projects and final exams
 - **Fall 2015/16, Information Retrieval, 3rd year B.Sc., Faculty of Informatics, USI:** Responsible for the course projects, grading the course projects and exams, doing one lecture on opinion retrieval
 - **Spring 2015, Data Analytics, M.Sc., Faculty of Informatics, USI:** Responsible for labs on R, designing and supervising the projects, grading projects and final exams
 - **Fall 2014/15, Fundamentals of Informatics, M.Sc., Faculty of Informatics, USI:** grading exams

SELECTED PUBLICATIONS

- Anastasia Giachanou, Bilal Ghanem, and Paolo Rosso. Detection of conspiracy propagators using psycho-linguistic characteristics. *Journal of Information Science*. 1-15, January 2021.
- Anastasia Giachanou, Paolo Rosso, and Fabio Crestani. The impact of emotional signals on credibility assessment. *Journal of the Association for Information Science and Technology*. 72: 1117 – 1132, 2021.
- Anastasia Giachanou, Esteban Rissola, Bilal Ghanem, Fabio Crestani, and Paolo and Rosso. The role of personality and linguistic patterns in discriminating between fake news spreaders and fact checkers. In *Proceedings of the 25th International Conference on Applications of Natural Language to Information System, NLDB '20*, pages 181-192, 2020 (*second best paper*)
- Anastasia Giachanou, Julio Gonzalo, and Fabio Crestani. Propagating sentiment signals for estimating reputation polarity. *Information Processing and Management*, 56(6), 2019
- Anastasia Giachanou, Paolo Rosso, and Fabio Crestani. Emotional signals for credibility detection. In *Proceedings of the 42nd International ACM SIGIR Conference on Research and Development in Information Retrieval, SIGIR '19*, pages 877–880, 2019
- Niels van Berkel, Eleftherios Papachristos, Anastasia Giachanou, Simo Hosio, and Mikael B. Skov. A systematic assessment of national artificial intelligence policies: Perspectives from the nordics and beyond. In *Proceedings of the 11th Nordic Conference on Human-Computer Interaction: Shaping Experiences, Shaping Society*, pages 1–12. 2020
- Anastasia Giachanou and Fabio Crestani. Like it or not: A survey of twitter sentiment analysis methods. *ACM Computing Surveys*, 49(2):28, 2016

RESEARCH VISITS & SEMINARS

- Tutorial on “The Battle Against Online Harmful Information: The Cases of Fake News and Hate Speech” co-organised with Paolo Rosso at CIKM '2020, online event (Oct. 2020)
- Presentation on “The Role of Emotions and Multimodal Information on Fake News Detection” at the Utrecht University NLP group meeting, online presentation (Oct. 2020)
- Keynote talk on “Misinformation Detection in Online Social Networks” at PAN 2020@CLEF 2020 online event (Sep. 2020)
- Seminar on the “Fake News Detection with Content and Social Information” at Open University of Cyprus, Nicosia, Cyprus (Nov. 2019)
- Keynote talk on “Misinformation Detection in Online Social Networks using Content Information” at SNAMS 2019, Granada, Spain (Oct. 2019)
- Seminar on “Sentiment and Emotional Signals for Reputation Analysis and Fake News Detection”, Symanto, Spain (July 2019)
- Seminar on “Tracking Public Opinion on Social Media”, Valencia, Spain (March 2018)
- Participation in the Dagstuhl Seminar “User-Generated Content in Social Media”, Germany (June 2017)
- Research visit to Prof. Paolo Rosso, Universitat Politècnica de València, Valencia, Spain (May 2017)
- Research visit to Prof. Julio Gonzalo, Universidad Nacional de Educación a Distancia, Madrid, Spain (June 2016)
- Seminar on “Topic-Specific Stylistic Variations for Opinion Retrieval on Twitter Explaining Sentiment Spikes” at Aalborg Universitet, Aalborg, Denmark (Oct. 2016)
- Research visit to Prof. Kasturi Varathan, University of Malaya, Kuala Lumpur, Malaysia (Oct. 2015)

COMMUNITY SERVICE

- **Co-Chair of MISDOOM 2021:** Co-Chair of the 3rd Multidisciplinary International Symposium on Disinformation in Open Online Media (MISDOOM), 21-22 September 2021

- **Special Issue Editor:** Editor of the Special Issue on Online Information Disorder: Fake News, Bots, and Trolls at the International Journal of Data Science and Analytics (JDSA)
- **Journal Editorial Board:** Information Processing and Management (IP&M)
- **PC member:** MISDOOM 2021, ECIR 2021, ECIR 2020, SIGIR 2019, NewsIR 2019, SIGIR 2018, NewsIR 2018, ECIR 2017, ECIR 2016, CIKM 2016
- **Journal Reviewer:** Information Processing and Management (IP&M), Journal of Information Systems (JIS), International Journal of Data Science and Analytics (JDSA) Social Network Analysis and Mining (SNAM)
- **Reviewer:** JCDL 2018, TPDL 2017, ICTIR 2017, CIKM 2017, SIGIR 2017, ICADL 2016, ECIR 2015, KDD 2015
- **Student Volunteer:** SIGIR 2016
- **Local Organizer:** IIR 2017

SCHOLARSHIPS & AWARDS

- Second best paper award for the paper “The role of personality and linguistic patterns in discriminating between fake news spreaders and fact checkers” by Anastasia Giachanou, Esteban Rissola, Bilal Ghanem, Fabio Crestani, and Paolo and Rosso published at NLDB '20 (June 2020)
- Early postdoc fellowship by Swiss National Foundation on the project “*Early Fake News Detection on Social Media*” (December 2018 - July 2020)
- IP&M journal top reviewer award (Dec. 2017)
- SIGIR ACM Student grant to attend the 50th Celebration of the Turing Award (June 2017)
- Short-Term Scientific Mission travel grant by COST Action IC1302 for a research visit at the Universidad Nacional de Educación a Distancia, NLP&IR Group, Madrid, Spain (June 2016)
- BCS IRSG travel grants to attend ECIR conference (March 2016 & Apr. 2017)
- SIGIR ACM student travel grant to attend SIGIR conference (July 2016)
- ELIAS travel grant to attend the Russian Summer School on Information Retrieval (Aug. 2015)
- Registration Fee Recipient for registration fees at CLEF Conference (Sept. 2013)
- SAAS Scholarship for university fees of my master studies at University of Glasgow (Sept. 2009)
- Prize awarded by Eurobank EFG for my Hellenic National Exam academic records (March 2004)

OTHER SKILLS

- **Creative problem solving:** Very passionate in solving problems, a skill obtained and improved through my research and work experience over the last eight years.
- **Teamwork:** Excellent skills in teamwork obtained through collaborations.
- **Presentation skills:** Excellent presentation skills obtained through presentations at conferences, seminars and keynote talks and tutorial.
- **Writing skills:** Excellent writing skills developed through the published articles and projects proposals.
- **Languages:** Greek (Native), English (Excellent), Spanish (Intermediate), Dutch (Beginner)
- **Hobbies:** Tennis, dancing, photography