

Maria Vlachou

Glasgow, UK | m.vlachou.1@research.gla.ac.uk | mariavlachou.github.io
linkedin.com/in/maria-vlachou-680450a0/ | github.com/mariavlachou

Education

University of Glasgow Social AI CDT, PhD Artificial Intelligence	Sept 2021 – Sept 2024
Competitive admission \approx 10% acceptance rate. PhD Thesis "Predicting Retrieval Failures in Conversational Recommendation Systems.". Supervisor: Prof. Craig Macdonald.	
University of Glasgow Social AI CDT, Integrated Study Artificial Intelligence	Sept 2020 – June 2021
First year of CDT consisting of Master-level courses.	
University of Glasgow , MS Data Analytics	Sept 2017 – Sept 2018
Master Thesis "Auto-encoders: Neural Networks for Dimensionality Reduction.". Supervisor: Prof. Dirk Husmeier	
KU Leuven , MRes Psychology: Theory and Research	Sept 2015 – Sept 2017
Master Thesis "The effects of social exclusion on personal goals and action tendencies examined with an implicit measure". Supervisor: Prof. Agnes Moors	
Panteion University , BS Psychology	Sept 2009 – June 2013
Focus on Research Methods, Statistics, Experimental Design, Social Psychological Methodology, and Applied Behaviour Analysis.	

Experience

Business Intelligence Developer - Tester , PRA Health Sciences – Livingston, UK	Nov 2019 – Aug 2020
<ul style="list-style-type: none">• Testing Dashboards for iDarts (Intuitive Data Analysis Reporting Tools) Spotfire, a validated tool for Medical Review of clinical study data working on an outsourced project for Jonhson & Johnson.• Working as part of a multi-disciplinary team in an iterative environment with Dev-QA-Production, ensuring the necessary quality checks are conducted at each stage.	
Associate Business Intelligence Developer - Tester , PRA Health Sciences – Livingston, UK	Dec 2018 – Oct 2019
<ul style="list-style-type: none">• Testing Dashboards for iDarts (main task).• Statistical analysis & insights for ongoing metrics of multiple sites using R-programming (side-task).	
Research Intern , KU Leuven – Leuven, BE	Aug 2016 – June 2017
<ul style="list-style-type: none">• Specialised in Statistics: Context-dependent statistical inference, multilevel/mixed models for optimal research design, sample size planning, research integrity and reproducibility of science.• Supervisors: Prof. Francis Tuerlinckx and Prof. Wolf Vanpaemel	
Assistant Applied Behaviour Analysis Coach , Copenhagen, DK	Jan 2015 – Mar 2015
Private with supervision (working for a family's child with autism, in an applied funded intervention).	
Research Intern , Panteion University – Athens, GR	Oct 2012 – Jan 2013
<ul style="list-style-type: none">• Applied Behaviour Analysis practice in "David's Shield" All-day Center for children with autism.• Supervisor: Prof. Robert Mellon	

Publications

Coherence-based Query Performance Measures for Dense Retrieval	Jul 2024
<i>Maria Vlachou</i> , Craig Macdonald	
<i>ICTIR 2024</i> : The 10th ACM SIGIR / The 14th International Conference on the Theory of Information Retrieval pdf	
What Else Would I Like? A User Simulator using Alternatives for Improved Evaluation of Fashion Conversational Recommendation Systems.	Jan 2024

Maria Vlachou, Craig Macdonald

arXiv 2024 [pdf](#)

On Coherence-based Predictors for Dense Query Performance Prediction.

Oct 2023

Maria Vlachou, Craig Macdonald

arXiv 2023 [pdf](#)

Performance Predictors for Conversational Fashion Recommendation

Sept 2022

Maria Vlachou, Craig Macdonald

KaRS@RecSys 2022:

4th Edition of Knowledge-aware and Conversational Recommender Systems (KaRS) Workshop @ RecSys 2022.

[pdf](#)

I have also been part of a multi-site pre-registered replication research project, and therefore, included as a co-author in two resulting research papers as a quantitative research psychologist before joining the Terrier team in Glasgow. These are listed below:

Many Labs 5: Testing pre-data-collection peer review as an intervention to increase replicability.

Aug 2020

Advances in Methods and Practices in Psychological Science, 2020

[pdf](#)

Many Labs 5: Registered multisite replication of the tempting-fate effects in Risen and Gilovich (2008).

May 2020

Advances in Methods and Practices in Psychological Science, 2020

[pdf](#)

Awards and Grants

SIGIR Travel Grant (2024): Grant covering the registration cost and travelling expenses for attending SIGIR & ICTIR 2024.

Social AI Scholarship (2020): Postgraduate research scholarship covering the tuition fees for my PhD in Artificial Intelligence at the Social AI CDT and offering a PhD stipend for living costs.

Datalab Scholarship (2017): Postgraduate taught scholarship covering the tuition fees for my MSC. in Data Analytics studies. This scholarship is given annually by the Datalab Scotland to selected students of MSC. degrees related to data science across universities in Scotland.

Teaching

Data Fundamentals - H (Fall 2022): Tutor (Teaching Assistant)

Machine Learning for Data Scientists - M (Fall 2021): Tutor (Teaching Assistant)

Outreach & Professional Development

Conversational User Interfaces (CUI) Conference, (July 2022): Student Volunteer.

Erasmus+ Seminar on Quantitative Thinking: Programming in R and Shiny (March 2017): Student Team Project on quantitative modeling and interactive applications in psychology.

Technical Skills

Advanced: Python (Pytorch, numpy, pandas, sklearn, keras, spacy, Pyterrier), R (ggplot2, dplyr, lme4, Rjags), Spotfire, LATEX

Familiar with: Matlab, SQL, SAS, HTML

Other Skills & Interests

Languages: Greek (native), English (full professional proficiency), German (limited professional proficiency), Danish (basic)

Interests: ballet, theatre, yoga