

# FABRIZIO RUSSO

## Research Postgraduate

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in fabriziorusso

## SUMMARY

Currently studying towards a PhD in Computer Science funded by the UKRI Centre for Doctoral Training in Safe and Trusted Artificial Intelligence (STAI CDT, 4 years program). My background is in Economics and Statistics and, as a consultant, I have led several modelling projects for financial institutions. Passionate about research and innovation, I am studying and developing techniques for explainable knowledge discovery, to the benefit of both academia and industry.

## EDUCATION

### PhD in Computer Science

Imperial College London

Full-time: Oct 2020 – Oct 2024 (exp)

UK

- Supervisor: Prof. Francesca Toni
- Topic: Causality and Argumentation for Explainable AI
- Visiting PhD Student at King's College London

### MSc in Applied Statistics (Distinction)

University of London - Birkbeck College

Part-time: Oct 2016 – Oct 2018

UK

- Dissertation: Macroeconomic Modelling through VAR and VEC

### BSc in Economics of Financial Markets and Institutions (1:1)

University of Rome - Tor Vergata

Full-time: Oct 2009 – Oct 2012

Italy

- Dissertation: The Tobin Tax between Theoretical Wherewithal and Practical Feasibility

### Funded Exchange Program

University of Madrid - Autonoma

Full-time: Oct 2011 – Jun 2012

Spain

## WORK EXPERIENCE

### Graduate Teaching Assistant

Imperial College London

Part-time: Oct 2021 & 2022

UK

- Teaching support for *Introduction to Machine Learning* course

### Freelance Consultant

Imperial College Consultants (ICON)

Part-time: Mar 2022 – Sep 2022

UK & USA

- Research on outlier identification and forecast for UK commercial properties index

### Doctoral Researcher

Ernst & Young (in collaboration with STAI CDT)

Part-time: Jan 2021 – Apr 2021

UK

- Research on back-door poisoning attacks identification for transformer-based Large Language Models

### Head of Data Science

4most Europe Ltd

Full-time: Feb 2018 – Sep 2020

UK

- Research Lead - Replicate Underwriter Behaviour using Machine Learning
- Research Lead - Commercial Credit Risk Scoring using Machine Learning
- Research Lead - Design, prototype and build an interactive monitoring tool (Tech of the Year - National Credit Awards '22)

Managing Consultant

4most Europe Ltd

📅 Full-time: Jul 2016 – Jan 2018

📍 UK & Canada

Credit Risk Consultant

4most Europe Ltd

📅 Full-time: Jul 2015 – Jun 2016

📍 UK

Credit Risk Analyst

General Electric Capital - UK Home Lending

📅 Full-time: May 2014 – Jun 2015

📍 UK

## PUBLICATIONS

### 👥 Conference Proceedings

- Rago, Antonio, Fabrizio Russo, Emanuele Albini, Pietro Baroni, and Francesca Toni (2021). "Forging Argumentative Explanations from Causal Models". In: *Proceedings of the 5th Workshop on Advances in Argumentation in Artificial Intelligence 2021 co-located with the 20th International Conference of the Italian Association for Artificial Intelligence (AIXIA 2021)*. Volume 3086. CEUR Workshop Proceedings. CEUR-WS.org.
- Russo, Fabrizio (Aug. 2023). "Argumentation for Interactive Causal Discovery". In: *Proceedings of the Thirty-Second International Joint Conference on Artificial Intelligence, IJCAI-23*. Doctoral Consortium. International Joint Conferences on Artificial Intelligence Organization, pages 7091–7092.
- Russo, Fabrizio and Francesca Toni (2023). "Causal Discovery and Knowledge Injection for Contestable Neural Networks". In: *Proceedings of the 26th European Conference on Artificial Intelligence (ECAI23)*. Forthcoming.

### 📖 Journal Articles

- Rago, Antonio, Fabrizio Russo, Emanuele Albini, Pietro Baroni, and Francesca Toni (2023). "Explaining Classifiers' Output with Causal Models and Argumentation". In: *Journal of Applied Logics – IfCoLog Journal of Logics and their Applications, Special Issue: Advances in Argumentation in AI 10.3*, pages 421–449.

## SERVICE

- ECAI '23 (Reviewer)
- AISTATS '23 (Top-Reviewer Award)
- BSKY at AAMAS '23 (Reviewer)
- AISTATS '22 (Reviewer)
- ICML '22 (Reviewer)
- XAI-FIN at ICAIF '22 (Workshop co-organiser)
- XAI-FIN at ICAIF '21 (Reviewer)
- XAI Seminars Series @ Imperial (Co-organiser)

## TALKS

Causal Discovery and Knowledge Injection for Contestable Neural Networks

📅 Jul 2023

Oral Presentation

📍 STAI Workshop @ International Conference on Logic Programming 2023 - London, UK

Argumentative Causal Discovery

📅 Feb 2023

Invited Speaker

📍 STAI CDT Student Seminar Series - London, UK

From Credit Risk to Explainable AI Research

📅 Jun 2022

Invited Speaker

📍 MSc in Fintech - Politecnico di Milano & UCL - London, UK

Causal Injection into Neural Networks

📅 Nov 2021

Oral Presentation

📍 XAI in Finance Workshop @ ACM International Conference on AI in Finance 2021 - Virtual Event

Risk Scorecards with Machine Learning

📅 Nov 2019

Poster Presentation

📍 Joint Conference of Bank of England & King's College - London, UK

Credit Risk Modelling: Data and Techniques Used in the UK Banking Industry

📅 Oct 2019

Invited Speaker

📍 Danmarks Nationalbank Conference 2019 - Copenhagen, DK