

Felipe Maciel Cardoso | CV

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🌐 fmc Cardoso.github.io/

Expertise

Data Analysis: Full-Stack Big Data Analysis, Time Series Analysis, Panel Data Analysis, Dynamic Panel Models, Neural Networks, LSTM Networks, Data Visualization, Clustering Algorithms

Programing Languages: Python, R, C++, Java, Lua, C, C#, Javascript

Research Tools: NumPy, SciPy, R libraries (*lme4, plm, ggplot2, sandwich,...*), Scikit-learn, Pandas, igraph, graph-tool, NLTK

Databases: PostgreSQL, MySQL, SQL Server, HSQLDB, SQLite

Education

University of Zaragoza

PhD in Physics

Advisors: Prof. Yamir Moreno & Dr. Carlos Gracia Lázaro

Thesis: Strategic and Selfless interactions: A study of human behaviour

Zaragoza, Spain

2017 - 2020

University of Campinas

MSc in Computer Science

Advisor: Prof. André Santanchè

Thesis: Topical Homophily in an Online Social Network

Campinas, Brazil

2014 - 2016

University of Campinas

Bachelor of Computer Science

Campinas, Brazil

2008 - 2012

Employment

University of Zaragoza

Research assistant

Development of platforms for socio-economic experiments using Django/Python and PostgreSQL databases. Execution and data analysis of experiments using econometric models and machine learning algorithms. Theoretical modelling in evolutionary game theory.

Zaragoza, Spain

02/2019 - 01/2021

UC3M

Research assistant

Development of platforms for socio-economic experiments using Django/Python and PostgreSQL database. Execution and data analysis of experiments using econometric models and machine learning algorithms.

Madrid, Spain

02/2017 - 01/2019

Kaffa Mobile

Software Engineer

Development of mobile and web applications with Java and Lua for GIS. SQL Server, HSQLDB and H2 databases. Requirements analysis directly with stakeholders.

Campinas, Brazil

10/2013 - 07/2014

MC1 <i>Developer</i> Development of applications for Android and Windows mobile devices. Ported Windows Mobile (C#) code to Android (Java). SQL Server and SQLite databases. Training of interns.	Campinas, Brazil 07/2012 - 10/2013
Kaffa Mobile <i>Intern</i> Development of applications with Java and Lua for mobile devices. SQL Server, HSQLDB and H2 databases.	Campinas, Brazil 5/2011 - 06/2012
CPqD <i>Intern</i> Web Development with Java and Javascript.	Campinas, Brazil 1/2011 - 05/2011
Institute Of Economics - UNICAMP <i>Intern</i> Development of Web Applications using Java, Javascript, JSF, and SQL Server Database.	Campinas, Brazil 7/2009 - 1/2011
Celere IT <i>Intern</i> Development of Web Applications with C#.NET, ASP.NET, and SQL Server Database.	Campinas, Brazil 4/2008 - 11/2008
John & Mark IT Solutions <i>Intern</i> Software Development with Visual Basic.NET and SQL Server.	São José dos Campos, Brazil 1/2007 - 12/2007

Exchanges

ISI Foundation <i>Institute for Scientific Interchange</i>	Turin, Italy 06/2019 – 07/2019
ISI Foundation <i>Institute for Scientific Interchange</i>	Turin, Italy 06/2018 – 07/2018
University of Zaragoza <i>Six months exchange at the COSNET Lab.</i>	Zaragoza, Spain 09/2015–02/2016

Grants & awards

CAPES <i>Master Scholarship</i>	07/2016
Microsoft Research - Open Data Scholarship <i>Master Scholarship</i>	03/2016 - 06/2016
Santander International Mobility Scholarship <i>Mobility scholarship for 6 months exchange at University of Zaragoza</i>	07/2015 - 02/2016
CAPES <i>Master Scholarship</i>	12/2014-02/2015
IHC+CLIHC 2011 <i>1st Place on the Evaluation Competition, Undergraduate Level.</i>	2011

Publications

2020 **F. Maciel Cardoso**, C. Gracia-Lázaro, and Y. Moreno, "Dynamics of heuristics selection for cooperative behaviour", *New Journal of Physics*, DOI: 10.1088/1367-2630/abcb70.

2020 M. Jusup, **F. Maciel-Cardoso**, C. Gracia-Lázaro, C. Liu, Z. Wang, and Y. Moreno, “Behavioural patterns behind the demise of the commons across different cultures”, *Royal Society Open Science*, DOI: doi.org/10.1098/rsos.201026

2020 **F. Maciel Cardoso**, C. Gracia-Lázaro, F. Moisan, S. Goyal, A. Sánchez, and Y. Moreno, “Effect of network topology and node centrality on trading”, *Scientific Reports*, DOI:doi.org/10.1038/s41598-020-68094-z

2020 L. De Amicis, S. Binetti, **F. Maciel Cardoso**, C. Gracia-Lázaro, A. Sánchez, and Y. Moreno, “Understanding drivers when investing for impact: an experimental study”, *Palgrave Communications*, DOI: doi.org/10.1057/s41599-020-0447-y

2020 L. Marengo, H.A. Carmona, **F. Maciel Cardoso**, J.S. Andrade Jr, and C.L. Cesar, “Time evolution of the behaviour of Brazilian legislative Representatives using a complex network approach”, *PLoS ONE*, DOI: doi.org/10.1371/journal.pone.0226504

2019 F. Maciel Cardoso, S. Meloni, A. Santanche, and Y. Moreno, “Topical Alignment in Online Social Systems”, *Frontiers in Physics*, DOI: doi.org/10.3389/fphy.2019.00058

Papers under review & in preparation

- **F. Maciel Cardoso**, S. Meloni, C. Gracia-Lázaro, A. Antonioni, José A. Cuesta, A. Sánchez, and Y. Moreno, “Framing in multiple public goods games and donation to charities”, *Royal Society Open Science*, accepted.
- H. Ferraz de Arruda, **F. Maciel Cardoso**, G. Ferraz de Arruda, A.R. Hernández, L. da F. Costa, and Y. Moreno, “How social network algorithms can influence opinion polarization”, *in preparation*.
- **F. Maciel Cardoso**, M. Jusup, C. Gracia-Lázaro, Z. Wang, A. Sánchez, and Y. Moreno, “Targets and biases: a collective-risk social dilemma between two countries”, *in preparation*.

Talks

COMSOTEC20 <i>6th Annual Workshop on Complex Sociotechnical Systems</i> The selection of heuristics and the evolution of cooperation	Burgos, Spain 2020
ECREEW <i>Early Career Researchers in Experimental Economics Workshop</i> Indirect donations promote contributions to public goods	Santiago de Compostela, Spain 2019
CCS19 <i>Conference on Complex Systems</i> Trading in Complex Networks	NTU University, Singapore 2019
BIFI 19 <i>BIFI IX National Conference 2019</i> Trading in Networks - Topology and Prices	Zaragoza, Spain 2019
CCS18 <i>Conference of Complex Systems</i> Universal behavioural patterns behind the demise of the commons	Thessaloniki, Greece 2018

COMSOTEC18

4th Annual Workshop on Complex Sociotechnical Systems
Trading in Networks: Efficiency and Topology

Zaragoza, España
2018

Poster

COSTNET ECT

COSTNET: Early Career Training Event
Trading in Complex Networks

Munich, Germany
2019

BIFI18

BIFI International Conference on Complexity, Networks and Collective Behavior
Topical homophily in online social systems

Zaragoza, Spain
2018

COSTNET17

Statistical Network Science
Topical homophily in online social systems

Mallorca, Spain
2017

Schools Attended

SEMSTAT17

Statistical Network Science

Eindhoven, Netherlands
2017

NetSci-X 2015

1st International School and Conference on Network Science

Rio de Janeiro, Brazil
2015

Academic Activities

Teaching Assistant

Algorithms and Computer Programming
Laboratory classes, marking, assignment review, office hours, online support.

University of Campinas
2015

Invited Lecture

Database course
Two Lectures about Complex Networks given to undergraduate and graduate students.

University of Campinas
2015

XI Theses and Dissertations Workshop - WTD

Examination Board Member
Evaluation of theses and dissertations proposals.

IC - University of Campinas
2016

Referee experience

- PLoS ONE
- Physical Review E
- Chaos, Solutions & Fractals
- Journal of Statistical Mechanics: Theory and Methods
- Journal of Complex Networks

Conference Organization

BIFI18

Zaragoza, Spain

BIFI International Conference on Complexity, Networks and Collective Behavior

2018

Web design, implementation and local organization

Languages

Portuguese: Native

English: Fluent

Spanish: Fluent