

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

Programming Languages: Python, R, C++, Java, Lua, 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

Employment

University of Zaragoza

Research assistant

Development of platforms for socio-economic experiments. Execution and data analysis of experiments. Theoretical modelling in evolutionary game theory.

Zaragoza, Spain

02/2019 -

UC3M

Research assistant

Development of platforms for socio-economic experiments. Execution and data analysis of experiments.

Madrid, Spain

02/2017 - 01/2019

Kaffa Mobile

Software Engineer

Development of mobile and web applications with Java and Lua for GIS. Requirements analysis directly with stakeholders.

Campinas, Brazil

10/2013 - 07/2014

MC1

Developer

Development of applications for Android and Windows mobile devices. Training of interns.

Campinas, Brazil

07/2012 - 10/2013

Kaffa Mobile

Intern

Development of applications with Java and Lua for mobile devices.

Campinas, Brazil

5/2011 - 06/2012

CPqD

Intern

Web Development with Java and Javascript.

Campinas, Brazil

1/2011 - 05/2011

Institute Of Economics - UNICAMP

Intern

Development of Web Applications using Java, Javascript, JSF, and SQL Server Database.

Campinas, Brazil

7/2009 - 1/2011

Celere IT

Intern

Development of Web Applications with C#.NET, ASP.NET, and SQL Server Database.

Campinas, Brazil

4/2008 - 11/2008

John & Mark IT Solutions

Intern

São José dos Campos, Brazil

1/2007 - 12/2007

Software Development with Visual Basic.NET and SQL Server.

Education

University of Zaragoza

PhD Candidate in Physics

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

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

Zaragoza, Spain

2017 - 2020 (expected)

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

Exchanges

ISI Foundation

Institute for Scientific Interchange

Turin, Italy

06/2019 – 07/2019

ISI Foundation

Institute for Scientific Interchange

Turin, Italy

06/2018 – 07/2018

University of Zaragoza

Six months exchange at the COSNET Lab.

Zaragoza, Spain

09/2015–02/2016

Publications

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. Binenti, **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**, C. Gracia-Lázaro, and Y. Moreno, “Dynamics of heuristics selection for cooperative behaviour”, *New Journal of Physics*, accepted.
- **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”, *under review*.
- 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 <i>4th Annual Workshop on Complex Sociotechnical Systems</i> Trading in Networks: Efficiency and Topology	Zaragoza, España 2018

Poster

COSTNET ECT <i>COSTNET: Early Career Training Event</i> Trading in Complex Networks	Munich, Germany 2019
BIFI18 <i>BIFI International Conference on Complexity, Networks and Collective Behavior</i> Topical homophily in online social systems	Zaragoza, Spain 2018
COSTNET17 <i>Statistical Network Science</i> Topical homophily in online social systems	Mallorca, Spain 2017

Schools Attended

SEMSTAT17 Eindhoven, Netherlands
Statistical Network Science 2017

NetSci-X 2015 Rio de Janeiro, Brazil
1st International School and Conference on Network Science 2015

Academic Activities

Teaching Assistant University of Campinas
Algorithms and Computer Programming 2015
Laboratory classes, marking, assignment review, office hours, online support.

Invited Lecture University of Campinas
Database course 2015
Two Lectures about Complex Networks given to undergraduate and graduate students.

XI Theses and Dissertations Workshop - WTD IC - University of Campinas
Examination Board Member 2016
Evaluation of theses and dissertations proposals.

Grants & awards

CAPES
Master Scholarship 07/2016

Microsoft Research - Open Data Scholarship
Master Scholarship 03/2016 - 06/2016

Santander International Mobility Scholarship
Mobility scholarship for 6 months exchange at University of Zaragoza 07/2015 - 02/2016

CAPES
Master Scholarship 12/2014-02/2015

IHC+CLIHC 2011
1st Place on the Evaluation Competition, Undergraduate Level. 2011

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