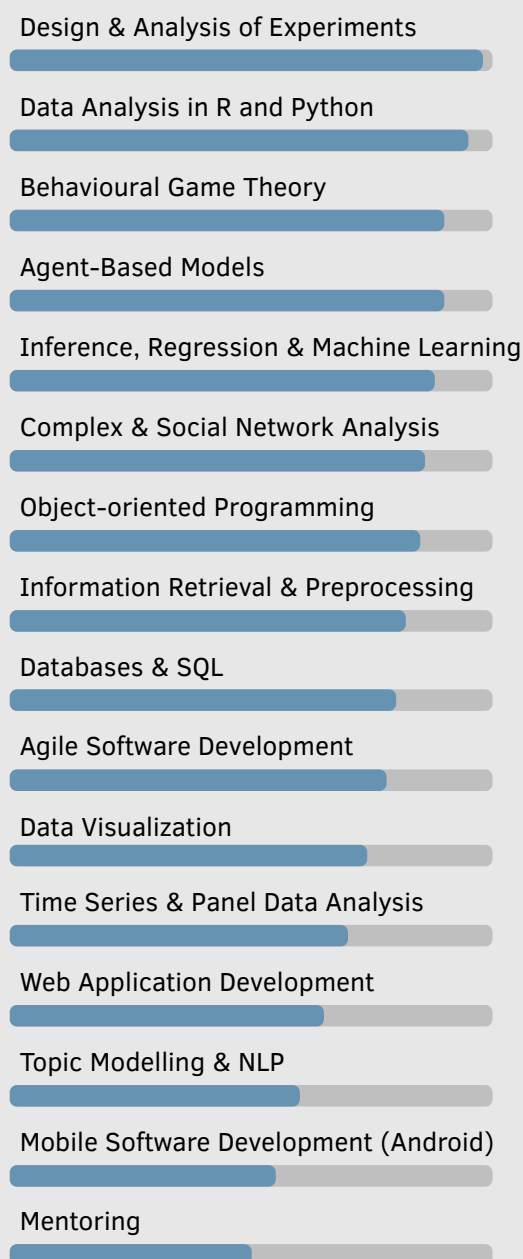


# Felipe Maciel Cardoso




Data Scientist | Quantitative Researcher

 December 19, 1988  
 Zaragoza, Spain  
 +34 694 459 708  
 <https://fmcardoso.github.io>  
 fmacielfcardoso@gmail.com

## Skills



## Languages

 Portuguese ●●●●●  
 English ●●●●●  
 Spanish ●●●●●

## Education

2017 – 2020 **PhD in Physics** University of Zaragoza  
**Thesis:** *Strategic and Selfless interactions: A study of human behaviour*  
2014 – 2016 **MSc in Computer Science** University of Campinas  
**Thesis:** *Topical Homophily in an Online Social Network*  
2008 – 2012 **Bachelor of Computer Science** University of Campinas  
Campinas, Brazil

## Working Experience

### Research & Data Science

2017 – 2021 **Research assistant** University of Zaragoza & UC3M  
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.

### Software Development

2013 – 2014 **Software Engineer** Kaffa Mobile  
Development of mobile and web applications with Java and Lua for GIS. SQL Server, HSQLDB and H2 databases. Requirements analysis directly with stakeholders.  
2012 – 2013 **Software Developer** MC1  
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.  
2011 – 2012 **Software Engineer** Kaffa Mobile  
Development of applications with Java and Lua for mobile devices. SQL Server, HSQLDB and H2 databases.  
2011 – 2011 **Web Developer** CPqD  
Web Development with Java and JavaScript.  
2009 – 2011 **Web Developer** Institute of Economics - UNICAMP  
Development of Web Applications using Java, JavaScript, JSF, and SQL Server Database.  
2008 – 2008 **Web Developer** Celere IT  
Development of Web Applications with C#.NET, ASP.NET, and SQL Server Database.  
2007 – 2007 **Software Developer** John & Mark IT Solutions  
Software Development with Visual Basic.NET and SQL Server.

## Exchanges

2019 – 2019 **Institute for Scientific Interchange** Turin, Italy  
One month exchange at the ISI Foundation.  
2018 – 2018 **Institute for Scientific Interchange** Turin, Italy  
One month exchange at the ISI Foundation  
2015 – 2016 **University of Zaragoza** Zaragoza, Spain  
Six months exchange at the COSNET Lab.

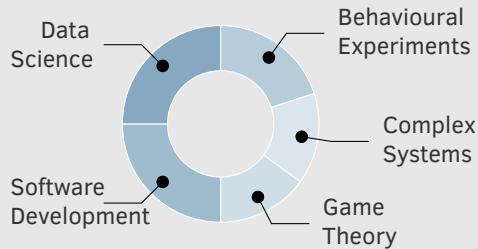
## Grants & Awards

2015 – 2016 **Open Data Scholarship** Microsoft Research  
17 Months Master Scholarship  
2015 – 2016 **International Mobility Scholarship** Santander  
Mobility scholarship for 6 months exchange at University of Zaragoza  
2014 – 2016 **Master Scholarship** CAPES  
3 Months Scholarship

# Felipe Maciel Cardoso

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## Expertise



## Programming Languages

Python R C++ Java Lua C  
C# JavaScript

## Databases

PostgreSQL MySQL SQL Server  
HSQLDB SQLite

## Development Methodologies

Scrum Kanban

## Libraries & Tools

caret lme4 plm ggplot2  
tidyverse igraph Shiny  
knitr NumPy SciPy Keras  
Scikit-learn Pandas graph-tool  
NLTK Gensim Git Callgrind

## Referee Experience

PLoS ONE Physical Review E  
Chaos, Solutions & Fractals JSTAT  
Journal of Complex Networks

2011

**1st Place on the Evaluation Competition**  
Undergraduate Level

IHC+CLIH 2011

## Publications

2020

**Dynamics of heuristics selection for cooperative behaviour**  
*F. Maciel Cardoso, C. Gracia-Lázaro, and Y. Moreno*  
New Journal of Physics

2020

**Behavioural patterns behind the demise of the commons across different cultures**  
*M. Jusup, F. Maciel-Cardoso, C. Gracia-Lázaro, C. Liu, Z. Wang, and Y. Moreno*  
Royal Society Open Science

2020

**Effect of network topology and node centrality on trading**  
*F. Maciel Cardoso, C. Gracia-Lázaro, F. Moisan, S. Goyal, A. Sánchez, and Y. Moreno*  
Scientific Reports

2020

**Understanding drivers when investing for impact: an experimental study**  
*L. De Amicis, S. Binenti, F. Maciel Cardoso, C. Gracia-Lázaro, A. Sánchez, and Y. Moreno*  
Palgrave Communications

2020

**Time evolution of the behaviour of Brazilian legislative Representatives using a complex network approach**  
*L. Marengo, H.A. Carmona, F. Maciel Cardoso, J.S. Andrade Jr, and C.L. Cesar*  
PLoS ONE

2019

**Topical Alignment in Online Social Systems**  
*F. Maciel Cardoso, S. Meloni, A. Santanche, and Y. Moreno*  
Frontiers in Physics

## Talks

2020

**6th Annual Workshop on Complex Sociotechnical Systems**  
*COMSOTEC20, Burgos, Spain*  
The selection of heuristics and the evolution of cooperation

2019

**Early Career Researchers in Experimental Economics Workshop**  
*ECREEW, Santiago de Compostela, Spain*  
Indirect donations promote contributions to public goods

2019

**Conference on Complex Systems**  
*CCS19, NTU University, Singapore*  
Trading in Complex Networks

2019

**BIFI IX National Conference 2019**  
*BIFI 19, Zaragoza, Spain*  
Trading in Networks - Topology and Prices

2018

**Conference of Complex Systems**  
*CCS18, Thessaloniki, Greece*  
Universal behavioural patterns behind the demise of the commons

2018

**4th Annual Workshop on Complex Sociotechnical Systems**  
*COMSOTEC18, Zaragoza, Spain*  
Trading in Networks: Efficiency and Topology

## Academic Activities

2015

**Teaching Assistant - IC/UNICAMP**  
*Algorithms and Computer Programming*  
Laboratory classes, marking, assignment review, office hours, online support.

2018

**BIFI18 Zaragoza, Spain**  
*BIFI International Conference on Complexity, Networks and Collective Behavior*  
Web design, implementation and local organization