

WORK EXPERIENCE

2017 - 2019

Data scientist

European Commission's Joint Research Center

Principal Investigator: Prof. Giuseppe Arbia

JRC is the European Commission's science and knowledge service which employs scientists to carry out research in order to provide independent scientific advice and support to EU policy. I was in charge the spatial analysis and software development of the FCPA project (see Research Project section).

- Crowdsourced data collection
- Spatial data analysis
- Software development
- Empirical research

Seville, Spain

EDUCATION AND TRAINING

2014 - 2017 - Roma, Italy

Bachelor's degree in Business Administration

Catholic University of Sacred Heart

Final grade : 110/110 cum laude

Thesis : Problems in crowdsourcing data prices in developing countries

Thesis advisor : Prof. Giuseppe Arbia

2018 - Milano, Italy

Master in Financial Modelling

24 Ore Business School

2017 - 2019 - Milano, Italy

Master's degree in Statistical and Actuarial Sciences

Catholic University of Sacred Heart

Final grade : 110/110 cum laude

Thesis : Spatial hedonic house prices using web data

Thesis advisor : Prof. Stefano Peluso

- Statistical methods
- Statistical modelling
- Data management and data mining
- Statistical Learning and Machine learning
- Deep Learning and Neural Networks

2019 - Chicago, United States

Visiting Scholar

Centre for Spatial Data Science - University of Chicago

- Spatial analysis
- Spatial econometrics
- Spatial data management
- Empirical research

01/11/2019 - CURRENT - Milan, Italy

Doctor of Philosophy (PhD) in Statistics

Università degli Studi di Milano-Bicocca

- Statistical modelling
- Machine learning
- Spatial statistics
- Empirical research

LANGUAGE SKILLS

MOTHER TONGUE(S): Italian

OTHER LANGUAGE(S):

English

Listening
C1

Reading
C1

**Spoken
production**
C1

**Spoken
interaction**
C1

Writing
C1

PUBLICATIONS

Refereed Conference Proceedings

- Nardelli, V., Ghiringhelli, C. (2019) How web scraped data impact the car sharing mobility analysis - Conference proceedings SIS 2019 - Milano [↗](#)
- Solano-Hermosilla, G., Micale, F., Nardelli, V. (2019) How Citizen Science and smartphones can help to produce timely and reliable information? - Conference proceedings SIS 2019 - Milano [↗](#)
- Arbia, G., Solano-Hermosilla, G., Nardelli, V. (2018) Post-sampling crowdsourced data to allow reliable statistical inference - Conference proceedings SIS 2018 - Palermo

Preprint Articles

- Alleva, G., Arbia, G., Falorsi, P.D., Nardelli, V., Zuliani, A. (2021). Spatial sampling design to improve the efficiency of the estimation of the critical parameters of the SARS-CoV-2 epidemic. arXiv preprint arXiv :2103.01254. [↗](#)
- Arbia, G., Nardelli, V. (2020) On Spatial Lag Models estimated using crowdsourcing, web-scraping or other unconventionally collected data. arXiv preprint arXiv : 2010.05287. [↗](#)
- Alleva, G., Arbia, G., Falorsi, P.D., Nardelli, V., Zuliani, A. (2020). A sample approach to the estimation of the critical parameters of the SARS-CoV-2 epidemics : an operational design. arXiv preprint arXiv :2010.05287. [↗](#)
- Palladino, A., Nardelli, V., Atzeni, L. G., Cantatore, N., Cataldo, M., Croccolo, F., Tombolini, A. (2020). Modelling the spread of Covid19 in Italy using a revised version of the SIR model. arXiv preprint arXiv :2005.08724. [↗](#)
- Arbia, G., Solano-Hermosilla, G., Micale, F., Nardelli, V., Genovese, G. (2020). Post-sampling crowdsourced data to allow reliable statistical inference : the case of food price indices in Nigeria. arXiv preprint arXiv :2003.12542

Book/Tech report

- Solano Hermosilla, G., Adewopo, J., Peter, H., Barreiro Hurlé, J., Arbia, G., Nardelli, V., Gorrin Gonzalez, C., Micale, F. and Ceccarelli, T. (2020) A quality approach to real-time smartphone and citizen-driven food market price data, Publications Office of the European Union, Luxembourg, ISBN 978-92-76-14305-5 doi : 10.2760/366116

NETWORKS AND MEMBERSHIPS

Memberships

- **DATA NETWORK (Founder from 2019)** - Data Network is a no-profit association that want to bring in a unique environment students, professionals and companies that believe in the power of data and the change that could bring to modern society.
- **ITALIAN STATISTICAL SOCIETY (Ordinary member from 2018)**
- **JOE'S BLUES FESTIVAL (President from 2013)** - JBF is an international blues festival organized by the no-profit association association "Amici di Joe" each summer in Molise (Italy).

CONFERENCES AND SEMINARS

Conferences

- Strategie di campionamento per il Covid-19 - INVALSI (IT) 2021
- A sampling approach for the estimation of the critical parameters of the SARS-CoV-2 epidemic: an operational design, Advisory Board – Istat (IT) 2020
- International Conference on Agricultural Statistics (ICAS-VIII), New Delhi (IN) 2019
- North American Regional Science Council - Spatial Econometrics Association conference, Pittsburgh (USA) 2019
- "Smart Statistics for Smart Applications" - Conference of the Italian Statistical Society, Milano 2019
- "Assessing the Quality of Spatial Crowdsourced and Web Data" - Study Group in Spatial Anaysis, Center for Spatial Data Science, The University of Chicago 2019
- "49th Scientific meeting of the SIS" - Conference of the Italian Statistical Society, Palermo 2018

PROJECTS

2017 - 2019

FOOD PRICE CROWDSOURCING IN AFRICA (FPCA) | JOINT RESEARCH CENTER (JRC) EUROPEAN COMMISSION

Seville (SPA)

FPCA project has been implementing a crowdsourcing approach where, since 2018, after an advertising campaign, anonymous volunteers spontaneously submit data at any day/time on prices of select food commodities (local and imported rice, maize, beans and soybeans), from different markets along the food chain (i.e. farm gate, wholesale and retail markets). The project focuses on the Kano and Katsina States in the Northern region of Nigeria and is a collaboration with the European Commission's Joint Research Centre.

2019

SPATIAL HEDONIC PRICE MODELING WITH WEB DATA | THE CENTRE FOR SPATIAL DATA SCIENCE

The University of Chicago (US) -

The Italian real estate market is not only very different from the US but its complexity and opacity result in a lack of comprehensive public data on home values. This personal project, developed during my visiting at CSDS, seeks to close this gap by introducing home value estimates from web-scraped and crowdsourced open data. It seeks to improve the accuracy of predicting home prices using a spatial hedonic model with such data. A new statistical, economic and IT approach to spatial hedonic price modelling is introduced to assess the quality of crowdsourced data from the internet. The project tests the feasibility of an infrastructure capable of scraping the data and analyzing it in real time.

2020 - 2021

SANITA' 2.0 | ALTEMS - UNIVERSITA' CATTOLICA DEL SACRO CUORE

Roma (IT)

In collaboration with ISS (Istituto Superiore di Sanità) and Ministry of Health. The research aims to stratify the population by health / risk condition and use of resources focusing on comorbidities. The number and type of comorbidities represent a central nucleus in the risk adjustment models, both as regards the health outcome and the demand for services and drugs. The qualitative and quantitative identification of comorbidity clusters is fundamental as regards the drugs and procedures expected in the coming years and the estimate of the potential use and impact of their access to the market.