# Andrea Gilardi | Curriculum Vitae

- Olginate (LC), Italy

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# **Summary**

I am a PhD Student in Statistics and Mathematical Finance at the University of Milan - Bicocca. My main research interests are spatial and spatiotemporal models on road networks.

#### **Education**

University of Milan - Bicocca PhD Student in Statistics and Mathematical Finance	NOV.17–Present
University of Milan - Bicocca  Master Degree in Statistics  Final mark: 110/110 e lode (Magna cum laude)	SET.15-OTT.17
Università of Milan - Bicocca Bachelor Degree in Statistics Final mark: 110/110 e lode (Magna cum laude)	SET.12–SET.15

# **Teaching**

<b>Teaching Assistant</b> : Introduction to Statistical Inference, University of Milan - Bicocca	SEP.20-FEB.21
<b>Teaching Assistant</b> : R for Road Safety. Program and Materials.	OCT.19-OCT.19
Teaching Assistant: Introduction to Statistical Inference, University of Milan - Bicocca	SEP.19-FEB.20
<b>Tutor</b> : Introduction to R, University of Milan - Bicocca. Materials.	MAR.19-APR.19
Tutor: Introduction to tidyverse and plumber, University of Turin - Master in Data Science	OCT.18-OCT.18
Teaching Assistant: Introduction to Statistical Inference, University of Milan - Bicocca	SEP.18-FEB.19
Teaching Assistant: Statistica Economica M., University of Milan - Bicocca	APR.18–JUL.18
Teaching Assistant: Introduction to Statistical Inference, University of Milan - Bicocca	SEP.17-SEP.18
Teaching Assistant: Informatics, University of Milan - Bicocca	MAY.17-SEP.17

Working Experience	
Catholic University of the Sacred Heart, Milan	Milan (Italy)
Consultant	OCT.20-NOV.20

Prof. Diego Zappa.	
University of Milan - Bicocca	Milan (Italy)
Collaboration with the Department of Economics, Management and Statistics	JUN.20-OCT.20

I worked on a project named Black Box and Big Data per la stima e la previsione dei sinistri under the supervision of

Prepare and organize the MSc admission tests.

GR & Partner S.A.S

Milan (Italy)

Consultant APR.18–OCT.18

I developed a User Interface using R and Shiny.

## **Master Degree Thesis**

Title: Previsione spaziotemporale per gli interventi in emergenza delle ambulanze nel comune di Milano

Supervisor: Prof. Riccardo Borgoni.

**Summary**: We developed a spatiotemporal model to predict the distribution of the emergency medical interventions in Milan.

## **Visiting Periods**

- o I spent four months in Castellón de la Plana (ES), from February 2020 to June 2020, working with Prof. Jorge Mateu on statistical models for events on road networks.
- o I stayed in Leeds (UK) for three months, from September 2019 to November 2019, working with <a href="Doct. Robin Lovelace">Doct. Robin Lovelace</a> on R packages and classes for road networks. Final presentation.

#### **Publications**

- 1. **Gilardi, A.**, Mateu, J., Borgoni, R., Lovelace, R., Multivariate hierarchical analysis of car crashes data considering a spatial network lattice. Under review. Preprint.
- 2. Gilardi, A., Lovelace, R., Padgham, M. Street Networks in R. Under review. Preprint.
- 3. Borgoni, R., **Gilardi, A.**, & Zappa, D. (2020). Assessing the Risk of Car Crashes in Road Networks. Social Indicators Research, 1-19.
- 4. Borgoni, R., **Gilardi, A.**, & Zappa, D. (2020). Spatial modelling of driver crash risk using georeferenced data. In NESPUTT 2019-New Economic & Statistical Perspectives on Urban & Territorial Themes.
- 5. **Gilardi, A.**, Borgoni, R., & Zappa, D. (2020). Assessing the Risk of Car Accidents in Road Networks. In NESPUTT 2019-New Economic & Statistical Perspectives on Urban & Territorial Themes.
- 6. **Gilardi, A.**, Borgoni, R., & Zappa, D. (2019). Spatial Logistic Regression for Events Lying on a Network: Car Crashes in Milan. In Smart Statistics for smart applications (pp. 1165-1170). Pearson Italia.
- 7. **Gilardi, A.**, Borgoni, R., Pagliosa, A., & Bonora, R. (2018). Spatiotemporal Prevision for Emergency Medical System Events in Milan. In Scientific meeting of the Italian Statistical Society.

# **Summer School and Workshops**

- o Robust Statistics: Foundations and Recent Developments, University of Milano-Bicocca, March 2019
- o CLADAG, Summer School on Clustering and Classification, University of Catania May 2018

#### **Conferences**

- o OpenGeoHub 2020, Wageningen (Netherlands)
- o e-RUM 2020: European R User Meeting. Online event.
- Nesputt 2019: New Economic & Statistical Perspective, Milan (Italy).
- o UseR! 2019 Meeting, 9-12 July 2019, Tolouse (France).
- o 50th Meeting of the Italian Statistical Society, 18-21 June 2019, Milan (Italy).
- o Statalk, March 29th, 2019, University of Padova (Italy).
- o 49th Meeting of the Italian Statistical Society, 20-22 June 2018, Palermo (Italy).
- o Statalk, November 17th, 2017, University of Padova (Italy).

# **Organized Conferences**

o I organized an online Webinar and Hackathon related to the R package <u>sfnetworks</u> as official satellite events of the e-Rum 2020 Conference. <u>Materials</u>, <u>slides</u> and recordings.

I was a member of the Local Organizing Committee of Nesputt 2019: New Economic & Statistical Perspective,
 Milan (Italy).

#### **Grants**

o Tidy Spatial Networks in R funded by the R Consortium. 9000\$

#### **Awards**

- o Scolarship for the OpenGeoHub 2020 Summer School. Project: *plotKML functionality to support sf and stars objects.* Final presentation.
- o SIS award for the best poster at the SIS-2019 conference.
- o Young-SIS award for the best poster at the SIS-2018 conference.

#### **Software**

I am a proficient R user, with a particular interest in the r-spatial world and the tidyverse environment. I am the author of two R packages, namely <u>osmextract</u> (currently <u>under review</u> by rOpenSci foundation) and <u>sfnetworks</u>. I contributed to several R packages like ggplot2, recipes, sf, stplanr and osmdata. I attended the *Tidyverse Developer Day* in Tolouse during the UseR! 2019 conference.

I have basic knowledge of SAS, Python and STATA, and LATEX.

## **Badges**

SAS: SAS Certified Base Programmer for SAS 9

SAS: SAS Certified Predictive Modeler Using SAS Enterprise Miner 7

#### **Additional Information**

Associazioni: Volunteer at Volontari del Soccorso di Calolziocorte from July 2016

### **Notes**

Autorizzo il trattamento dei miei dati personali ai sensi del Decreto Legislativo 30 giugno 2003, n. 196 "Codice in materia di protezione dei dati personali".