

# 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*

SET.15–OTT.17

Final mark: 110/110 e lode (Magna cum laude)

### Università of Milan - Bicocca

*Bachelor Degree in Statistics*

SET.12–SET.15

Final mark: 110/110 e lode (Magna cum laude)

## Teaching

**Teaching Assistant:** Introduction to Statistical Inference, University of Milan - Bicocca SEP.20–FEB.21

**Teaching Assistant:** 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

**Tutor:** 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

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

### University of Milan - Bicocca

Milan (Italy)

*Collaboration with the Department of Economics, Management and Statistics*

JUN.20–OCT.20

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

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**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

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- 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.
- I stayed in Leeds (UK) for three months, from September 2019 to November 2019, working with Doct. [Robin Lovelace](#) on R packages and classes for road networks. [Final presentation](#).

## Publications

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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

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

## Conferences

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

## Organized Conferences

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- I organized an online Webinar and Hackathon related to the R package [sfnetworks](#) as official satellite events of the e-Rum 2020 Conference. [Materials](#), [slides](#) and [recordings](#).

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

## Grants

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

## Awards

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

## Software

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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 osmextract (currently under review by rOpenSci foundation) and sfnetworks. I contributed to several R packages like `ggplot2`, `recipes`, `sf`, `stplanr` and `osmdata`. I attended the *Tidyverse Developer Day* in Toulouse during the UseR! 2019 conference.

I have basic knowledge of SAS, Python and STATA, and L<sup>A</sup>T<sub>E</sub>X.

## Badges

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**SAS:** SAS Certified Base Programmer for SAS 9

**SAS:** SAS Certified Predictive Modeler Using SAS Enterprise Miner 7

## Additional Information

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

## Notes

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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".