

VALENTINA ZANGIROLAMI

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Education

PhD in Statistics

University of Milano-Bicocca

Oct 2022 – Ongoing

Milan, Italy

- Research Interests: Statistical aspects of Reinforcement Learning
- Supervisor: Matteo Borrotti

Master's Degree in Statistical and Economics Sciences

University of Milano-Bicocca

Oct 2019 – Jan 2022

Milan, Italy

- Thesis title: Recurrent structures of Deep Reinforcement Learning for self-driving cars
- Supervisor: Matteo Borrotti, Co-supervisor: Antonio Candelieri
- Grade: 110 with honors

Bachelor's Degree in Statistical and Economics Sciences

University of Milano-Bicocca

Oct 2016 – July 2019

Milan, Italy

- Thesis title: The mobile telecommunication market: the entry of Iliad
 - Supervisor: Christian Garavaglia
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Experience

Data Science Analyst

Accenture (Industry: Media & Communications - Telco)

July – Oct 2022

Milan, Italy

- Data Quality
- Data analysis, feature selection and feature engineering
- New skills: AWS Storage (S3) and EMR, DBeaver (Apache Hive), PySpark

Data Engineering Analyst

Accenture (Industry: Banking & Finance - ESG)

Jan – June 2022

Milan, Italy

- Dashboard with PowerBI
 - PMO activities
 - New skills: Business Model Strategy and Business Process Design
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Teaching Experience

Tutor

Scientific-degree plan (PLS)

June 2024 - July 2024

University of Milano-Bicocca, Italy

- * **Language:** Italian
- * **Description:**
 - Preparation of materials for lab activities
 - Lab activities

Tutor of Statistical Learning course

Master's Degree in Artificial Intelligence for Science and Technology

Academic year 2023 – 2024

University of Milano-Bicocca, Italy

- * **Language:** English
- * **Description:**
 - A lecture on "An introduction to R language programming and tidyverse"
 - Introduction to R-project with GitHub. Example of final project: data analysis and statistical learning models for churn prediction
 - Simulation of the final exam providing a summary of the main theoretical statistical learning topics

Tutor*Scientific-degree plan (PLS)*

Feb 2024 - May 2024

*University of Milano-Bicocca, Italy** **Language:** Italian* **Description:**

- Preparation of materials for lab activities
- Support in student activities

Adjunct Lecturer of Statistical Modelling course*Bachelor's Degree in Artificial Intelligence*

Academic year 2023 – 2024

*University of Milano-Bicocca, Italy** **Language:** English* **Description:**

- Exercises on Simple Linear Regression Model, Multiple Linear Regression Model and Generalized Linear Model
- Examples on R

Tutor of Statistical Learning course*Master's Degree in Artificial Intelligence for Science and Technology*

Academic year 2022 – 2023

*University of Milano-Bicocca, Italy** **Language:** English* **Description:**

- A lecture on "An introduction to R language programming"
- Practical lectures on Data Analysis and linear regression with R
- Simulation of the final exam providing a summary of the main theoretical statistical learning topics

Other Courses (Extra-curricular - professionalizing courses)**Natural Language Processing Specialization**

Sept 2022

DeepLearning.AI (Coursera)

* Certification ID: QSY533SPPTAK

AI for Medicine Specialization

Sept 2022

DeepLearning.AI (Coursera)

* Certification ID: G2GRMAS7BWA2

Data Engineering and Machine Learning using Spark

Aug 2022

IBM (Coursera)

* Certification ID: A9UWPVHNXHEU

Publications**Refereed journals**

- **Zangirolami, V.** and Borrotti, M. (2024) *Dealing with uncertainty: balancing exploration and exploitation in deep recurrent reinforcement learning*. Knowledge-Based Systems, 293.

Research Awards

Data Research Camp

The Data Research Camp

15-18 July 2024

Department of Statistics, Computer Science, Applications of the University of Florence

Florence, Italy

- * Selected participant for workshop
- * Travel award (accommodation)

Data competition

Stats Under the Stars 6

20-21 June 2023

Italian Statistical Society (SIS)

Ancona, Italy

- * Winner of the 2nd position: Best objective prediction
- * **Description:**
 - The aim of the challenge was to estimate weights for each financial asset.
 - Real-Data was provided by Flow Traders company

Lab Data Challenges: Electricity Load Forecast Challenge

May 2021

University of Milano-Bicocca

Milan, Italy

- * Winner of the 1st position: Best prediction
- * **Description:**
 - The aim of the challenge was to find the best model for long-term predictions
 - Real-Data was provided by Repower company

Coding Project

Multi-Agent Deep Recurrent Q-Network | Python

Dec 2021 – Jan 2022

- * Application: self-driving cars

Skills

Programming Languages: R (Advanced), Python (Intermediate), SQL (Intermediate), Stata (Beginner), SAS (Beginner), C/C++ (Beginner)

Markup Languages: Latex (Intermediate), HTML (Beginner)

Data Visualization (Software): PowerBI, Tableau

Other statistical software: Knime, Gretl

Developer Tools: Jupyter Notebooks, Git, Amazon AWS (S3 and EMR), IBM Cloud (Watson Machine Learning)

OS: Windows, MacOS, Linux (Beginner)

Python Packages: OpenCV, Pandas, Tensorflow, Seaborn, Matplotlib, OpenAI Gym, Numpy, ScikitLearn, Keras, PySpark

Microsoft Office: Word, Excel, Power Point, Access

Languages: Italian (Native), English

October, 2024

Valentina Zangirolami