



Irene Treccani

Home: Via Dante, 25068 SAREZZO (BS)

Gender: Female | Date of birth: Jan 13 1998 | Nationality: Italy

WORK EXPERIENCE

[02/2024 - 09/2024]

bioinformatics scientist

Università degli studi di Verona - DIMI (VR) Italy

Company sector: Engineering and design

Business or sector: computer science, data processing and acquisition

Main activities and responsibilities: In the AntiAGING: Artificial Intelligence for Healthy Aging project, I worked as a researcher in the DestGENE team, focusing primarily on WP2 (Genotype-Phenotype Mapping) and contributing to WP3 (XAI and Post-hoc Validation). My role involved analyzing genetic determinants of relevant phenotypes using multi-omics data, including single nucleotide polymorphisms, gene expression, and scRNA-seq data. I designed and implemented computational pipelines to identify genetic variants, working with datasets such as UKB and ADNI. I also contributed to the development of XAI models, integrating WP2 results. I worked on this project for two and a half months at the University of Turin.

[04/2022 - 04/2023]

bioinformatics scientist

Università degli studi di Brescia (BS) Italy

Company sector: Engineering and design

Business or sector: computer science, data processing and acquisition

Main activities and responsibilities: Internship carried out at the Biology and Genetics Laboratory, under the supervision of Prof. Paolo Martini, involved the analysis and processing of results from in-depth research in the field of psychiatric disorders, with a particular focus on Major Depression. The work consisted of studying genetic variants in patients from the Civil Hospital of Brescia, with the goal of calculating the Polygenic Risk Score (PRS) for the disease. During the internship, I gained experience using new tools such as PLINK and BCFTOOLS, and deepened my knowledge of programming languages like Bash and RStudio, applying them to the analysis of genetic data.

[09/2022 - 12/2022]

survey enumerator

Stato Italiano - SAREZZO (BS) Italy

Main activities and responsibilities: After winning the public tender and attending the training courses, I carried out the census at the Municipality of Sarezzo (BS). The census allows for the collection of data on the main structural and socio-economic characteristics of the population residing regularly in Italy, at the national, regional, and local levels, and enables comparisons with historical data and other countries.

[10/2022 - 10/2022]

Scrutineer.

Stato Italiano - SAREZZO (BS) Italy

Main activities and responsibilities: I worked as a scrutineer at the Municipality of Sarezzo during the elections held in 2022.

[12/2019 - 08/2020]

bioinformatics scientist

Università degli Studi di Verona, Ca' Vignal 1 - VERONA (VR) Italy

Company sector: Engineering and design

Business or sector: computer science, data processing and acquisition

Main activities and responsibilities: The internship was carried out at the physics laboratory at the University of Verona, under the supervision of Prof. Alessandro Romeo. I was involved in using Atomic Force Microscopy to study the behavior of nanoparticles treated with different substances, with the aim of imparting metallic properties to them, in order to enable their transport using magnets, without altering their structure.

[03/2018 - 03/2018]

Scrutineer

Stato Italiano - SAREZZO (BS) Italy

Main activities and responsibilities: I worked as a scrutineer at the Municipality of Sarezzo during the elections held in 2018.

EDUCATION AND TRAINING

[2024 - present]

Intelligent Systems Engineering

Università degli Studi di VERONA

Town: VERONA

EQF level: 8

NQF level: Doctor of Philosophy (Ph.D.)

[2020 - 2023]

MEDICAL BIOINFORMATICS - BIOINFORMATICA MEDICA

Università degli Studi di VERONA

Town: VERONA

2nd level degree in Computer Science

Final degree mark: 96/110

EQF level: 7

NQF level: 2nd cycle degree/Master of Science (2 years)

Dissertation/thesis title: POLYGENIC RISK SCORES FOR MAJOR DEPRESSIVE DISORDER

[2017 - 2020]

BIOINFORMATICA

Università degli Studi di VERONA

Town: VERONA

1st level degree in Computer Science

Final degree mark: 101/110

EQF level: 6

NQF level: 1st cycle degree/Bachelor (3 years)

Dissertation/thesis title: ANALISI DI IMMAGINI PER MICROSCOPIA A FORZA ATOMICA

PRE-UNIVERSITY STUDIES

[2017]

Secondary school diploma: Scientific High School, Applied Sciences option
Italian secondary school diploma

LANGUAGE SKILLS

Mother tongue(s): Italian

Other language(s)

English

LISTENING: B2 READING: B2 WRITING: B2

SPOKEN INTERACTION: B2 SPOKEN PRODUCTION: B2

*Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2: Proficient user
Common European Framework of Reference for Languages*

ACADEMIC STUDIES IN FOREIGN COUNTRIES

Other experience not acknowledged by the course of study

Language: English

Duration of studies in months: 1

Foreign country where the academic studies were carried out: Lione (France)

Description: ERASMUS+

In 2022, I took part in a cultural exchange that hosted 20 young French people in Sarezzo for a week; afterward, the Italian group of 20 traveled to Lyon. The main theme was the importance of technology as a tool for sharing knowledge. We met with local authorities in both countries, sharing our views on youth engagement and on methods to communicate the available activities.

Other experience not acknowledged by the course of study

Language: English

Duration of studies in months: 1

Foreign country where the academic studies were carried out: Nyiregyhaza (Hungary)

Description: ERASMUS+

In 2021, I took part in a youth exchange project called "Goodbye Disposable!" which brought together young people from Turkey, Romania, Hungary, Spain, and Italy. Throughout the program, we engaged in

educational activities in English, focusing on the theme of sustainability and recycling.

Other experience not acknowledged by the course of study

Language: English

Duration of studies in months: 1

Foreign country where the academic studies were carried out: Galati (Romania)

Description: ERASMUS+

I took part in a second cultural exchange called 'Do IoT for Yourself, Do It for Your Family, Do It for Your Community,' which included young people from Turkey, Romania, Bulgaria, the UK, and Italy. Throughout the program, we engaged in educational activities in English, focusing on the theme of volunteering.

Other experience not acknowledged by the course of study

Language: English

Duration of studies in months: 1

Foreign country where the academic studies were carried out: Grenoble (France)

Description: ERASMUS+

I took part in a week-long cultural exchange that allowed me to gain a deeper understanding of French and Romanian culture. I had the opportunity to interact in English with peers while participating in educational activities focused on social awareness.

OTHER SKILLS

Communication skills

I have a strong sense of teamwork and a natural ability to collaborate with people from diverse backgrounds. Through international cultural exchange programs, I have developed the ability to adapt to multicultural environments, enhancing my interpersonal skills and building a sensitivity to different cultures. These exchanges taught me to listen to and appreciate others' perspectives, while also fostering clear and respectful communication.

During my volunteering experiences, I interacted with people of different ages and backgrounds, further improving my communication skills and group dynamics management. I have refined an empathetic approach, essential for understanding and mediating between diverse needs, even in complex situations.

Additionally, in my role as a sales manager, I gained advanced skills in negotiation and strategic communication. This experience taught me to adjust my language and approach according to my audience, boosting my ability to persuade and adapt, both in individual interactions and in larger team settings.

My overall experiences have enabled me to develop a flexible and professional approach to interpersonal relations, essential for creating a collaborative and constructive environment. I am therefore accustomed to working in contexts that require intercultural sensitivity, adaptability, and effective communication.

Organisational / managerial skills

Sono molto brava a cooperare con altre persone per raggiungere uno scopo, sono in grado sia di propormi come leader e farmi porta voce di idee, sia di lavorare sottostando alle regole altrui e quindi lasciarmi guidare nella realizzazione di progetti.

Sono una persona che non si sente in imbarazzo a chiedere aiuto e a delegare qualora abbia difficoltà.

Sono una persona curiosa, sempre pronta a mettersi in gioco per incrementare le conoscenze personali e interpersonali.

Mi trovo a mio agio nel lavorare in gruppo ma anche in maniera autonoma.

Job-related skills

I possess strong organizational and managerial skills developed through various work and volunteer experiences. As the leader of a team of 10 people, I have honed my leadership abilities, learning to motivate the team and efficiently manage both human and material resources. This experience has helped me understand the importance of planning and delegation, while also fostering a solution-oriented approach focused on achieving objectives.

Through my experience in the logistics sector, I developed a strong sense of organization and learned how to optimize processes to ensure operational efficiency. I am accustomed to managing deadlines and priorities, ensuring that timelines are met and activities are completed to a high standard. These organizational skills have been crucial in maintaining a structured workflow, even in high-pressure situations.

Additionally, I have gained valuable experience in project and group management in both volunteer and educational settings. I have coordinated events and group activities, overseeing each phase of the process, from initial planning to result evaluation. I developed a methodical approach to project management, setting clear goals and organizing resources to maximize the effectiveness of the team.

These experiences have strengthened my ability to make strategic decisions, plan activities systematically, and manage responsibilities independently and proactively, contributing to the creation of a productive and collaborative work environment

Other skills

I have developed specific technical skills in various fields through both professional and training experiences. In particular, I have a solid understanding of quality control processes, gained during my role as the quality assessment manager in a manufacturing sector. In this position, I was responsible for monitoring and ensuring that final products met the required quality standards, using advanced measurement tools and analyzing data to identify areas for improvement.

Additionally, I have gained technical expertise in logistics, where I managed and optimized warehouse workflows and distribution processes. I am familiar with using equipment for handling and managing goods, as well as software systems for inventory tracking and shipment planning.

Throughout my experiences, I have also deepened my knowledge of risk management in a professional context, learning to assess and mitigate operational risks. These skills have allowed me to work in complex environments, managing resources and activities in a targeted and professional manner while meeting deadlines and expected standards.

All of this has enabled me to handle complex technical tasks with an analytical and structured approach, improving operational efficiency and achieving set objectives.

DIGITAL COMPETENCES

SELF-ASSESSMENT				
INFORMATION AND DATA LITERACY	COMMUNICATION AND COLLABORATION	DIGITAL CONTENT CREATION	SAFETY	PROBLEM SOLVING
Proficient user	Proficient user	Proficient user	Proficient user	Proficient user

Digital competences - Self-assessment grid

DRIVING LICENCE

Driving licence category B

PUBLICATIONS

Conference proceedings

"Polygenic Risk Scores are associated to Aβ-t protein accumulation in Alzheimer’s Disease" ; Irene Treccani, Giorgio Dolci, Lorenza Brusini, Federica Cruciani, Ilaria Boscolo Galazzo, Gloria Menegaz ; 2024 IEEE International Conference on Metrology for eXtended Reality, Artificial Intelligence and Neural Engineering (Me (2024)