

VANIA FERRARI

I'm a creative engineer that loves using technology to provide meaningful experiences.

In particular, I love immersive technologies because I believe they can turn the real world into a dynamic and engaging playground and I would like to contribute to this.

I enjoy staying with people and I like to experiment with different things, trying to learn from every experience.



Experiences



Exprivia

APR 2024 - TODAY

Functional Analyst

As a functional analyst, I collaborate with multiple teams to address diverse needs. I work on projects that connect the **needs** raised in hospitals with innovative **Artificial Intelligence solutions** developed by university researchers. My role involves bridging the gap between the concrete challenges expressed by doctors and translating them into **technical requirements** that developers can implement.



Empatica Srl

SEPT 2022 - MAR 2024

Jr Embedded Algorithm Engineer

In this role, I integrated and optimized the DSP algorithms developed by the biomedical RnD team in the Empatica library.

My most significant achievements was **optimizing the epilepsy detection algorithm's runtime by 25%**, enabling it to operate in real-time on the bracelet. This improvement made it possible to detect seizure in real time, without which it would not have been possible. This accomplishment is particularly meaningful to me, as helping people who suffer from epilepsy has always been my personal mission, and I am proud to have made a tangible difference in their lives.



Empatica Srl

SEPT 2021 - AUG 2022

Graduate Engineer

As a graduate engineer, I had the chance to rotate in 4 engineering teams and to contribute to their projects actively.

- I worked with Data Engineers to create and implement a data collection protocol to validate a new algorithm.
- With the Mobile Engineers, I contributed to the process of **localizing** the Android app and **developing UI** for internal monitoring.
- The focus on the user experience and UI aspect increased when I moved to the front-end team, where I developed parts of the **user web portal**.
- The last rotation was in the Embedded Algorithm team, where I helped in optimizing algorithms that acquire data in a biomedical wearable device.

Experiencing different teams helps in getting the **bigger picture** of how multiple domains have to interact to deliver a complete product. Moreover, working in different fields helped me understand how the same problem can be addressed from multiple perspectives.

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Via Rutilia, Milano 20141

Education

- Master degree in ICT for internet and multimedia engineering, 110/110

Università di Padova, LM27
APR 2022

- Bachelor degree in Information Engineering

Università di Padova, L8
NOV 2019

Certificates

- from UNITY learn:
[Unity essentials](#) (2024),
[C# junior programmer](#) (on going)
- from [OpenCV University](#):
OpenCV Bootcamp (2024),
Python for beginners (2023)
- from Udemy:
[Create a game with C and SDL](#) (2024)
[SparkAR](#) (2023)
[Master the C language](#) (2022)
[React and JS for beginners](#) (2022)
[Kotlin for beginner](#) (2022)
[Unity for VR](#) (2019)
- from Talentlab Padova:
Arduino 1.0 (2019)
- from [Scuola di Robotica](#):
Robotics and Arduino,
Creative robotic course



Rachele Rosin, a doctor in Forestal Science, and I collaborated to start this initiative that had the aim to monitor the environment through **smart sensors** and collect them in a web portal.

We created a **team of almost 15 people**, started a course about “smart sensors and Arduino” with the help of Padova TalentLab, and created 3 weather monitoring stations.

I was in charge of technical and development areas.

We also collaborated with BoomForest, a startup with the same mission.



Vergani chess club

SEPT 2013 - AUG 2018

Chess instructor

For 5 years I taught chess both in the elementary school and in a competitive club.

- In the schools, each class followed a different course and it was an exciting challenge to find a way to catch the interest of classes composed of 20 children.
- In the meantime, I held advanced chess courses in a club to prepare the students for local and national competitions. I mixed study and games, and the results were very engaging.

Training and supporting these people in competitions was one of the most human-enriching experiences that I had.



Various teaching activities

SEPT 2013 - AUG 2018

Hobbies & interests

Games:

I love games, be it board games or video games, because of the incredible experiences they offer.

I made some VR games for the **Oculus Quest 2**, with the aim of relaxing the player or with the idea of teaching capabilities. Now I'm learning how to make some retro-style games.

Maker:

I appreciate sharing ideas with people and being part of creative teams. This is why I'm part of the local **FabLab** and I was part of **TedX** Montebelluna.

These groups have a genuine interest in experimenting with new things and sharing their knowledge actively, and meeting with them is always a boosting experience.

For Italy:
Autorizzo il trattamento dei dati personali contenuti nel mio curriculum vitae in base all'art. 13 del D. Lgs. 196/2003 e all'art. 13 GDPR 679/16.

Milano, 19 febbraio 2024

Languages

Italian: native

English: intermediate (B2)

Coding languages

- Working experience in:
C, Matlab, Kotlin,
JavaScript
- Personal projects with:
C++, C#, Python, bash