# PEDRANI NICOLO

## Specialist Consultant R&D Engineer

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## SUMMARY

Specialist Consultant R&D Engineer with a passion for leveraging machine learning algorithms to drive impactful solutions. Demonstrated experience in developing complex electronic systems and collaborating with diverse teams to achieve client goals. Eager to contribute to a mission-driven organization, working alongside experts to address pressing challenges in the private, public, and social sectors. Excited to utilize analytical skills and data-driven mindset to drive lasting improvements and create positive change.

## EXPERIENCE

### Specialist Consultant R&D Engineer

**Teoresi Spa/Leonardo Spa**

📅 12/2023   📍 Milan Italy

- Aerospace and Defence specialist consultant collaborating with system engineers to embed machine learning algorithms

### Data Scientist

**Deloitte Consulting**

📅 10/2022 - 12/2023   📍 Milan Italy

- Spearheaded digital transformation by designing advanced data science and analytics tools.
- Energy, Retail and Fashion industries

## EDUCATION

### Ph.D. Materials Science and Nanotechnology

**Università degli studi Milano Bicocca / Italian Institute of Technology**

📅 09/2021 - 10/2022   📍 Genova

- supervisor Prof. Michele Parrinello
- My research activity was mostly focused on the integration of machine learning and enhanced sampling techniques to study Rare events in physics, chemistry and biology

### M.Sc. in Physics

**Università degli studi di Milano**

📅 01/2019 - 01/2021   📍 Milan, Italy

- 110/110 cum laude
- Master thesis: Sythetic ecosystems with DNA strings: simulations and modelling
- Supervisors: Prof. Samir Suweis, Prof. Davide Galli and Dr Francesco Mambretti

### B.Sc. in Physics

**Università degli studi di Milano**

📅 01/2015 - 01/2018   📍 Milan, Italy

- 110/110 cum laude
- Bachelor thesis: Modeling and Simulation of electrical transport in nanostructures
- Supervisors: Prof. Davide Galli and Dr Francesco Mambretti

## FIND ME ONLINE

🌐 **LinkedIn**
https://www.linkedin.com/in/nicolo-pedrani

🌐 **GitHub Pages**
https://nicolopedrani.github.io

## SKILLS

Machine Learning   C++   Data Science   Excel

Github   Mathematica   Matlab   Python

Sql   Power Point   Client Management

Problem-Solving   Data Visualization

## CERTIFICATION

### McKinsey Forward Program
2024 - Mckinsey & Company

### Google Advanced Data Analytics Specialization
2024 - Coursera

### Google Project Management Specialization
2024 - Coursera

### Stanford University Machine Learning course
2020 - Coursera

## TRAINING / COURSES

### Invited speaker to Understanding complexity through italian scientists talks

### High Performance Molecular Dynamics Course

### Molsim: Understanding Molecular Simulations

## PUBLICATIONS

### OxDNA to Study Species Interactions
**Entropy (2022), 24(4), 458**

*F. Mambretti, N. Pedrani, L. Casiraghi, E. M. Paraboschi, T. Bellini and S. Suweis*

📅 2022   🔗 https://doi.org/10.3390/e24040458

Molecular ecology models DNA interactions competitively

### Dynamical stochastic simulation of complex electrical behavior in neuromorphic networks of metallic nanojunctions
**Scientific Reports volume 12, Article number: 12234**

*F. Mambretti, M. Mirigliano, E. Tentori, N. Pedrani, G. Martini, P. Milani and D. E. Galli*

📅 2022   🔗 https://doi.org/10.1038/s41598-022-15996-9

Nanostructured Au films showing neuromorphic potentia

## LANGUAGES

| English | Proficient | ●●●●○ |
|---------|-----------|-------|
| Italian | Native | ●●●●● |

## ADDITIONAL EXPERIENCE

### University Tutor

**Camplus College**

📅 2018 - Present   📍 Milano (MI)

- Boosted engineering exam scores by delivering customized private lessons.

### Football Coach

**School Of Sport**

📅 2019 - 2022   📍 Busto Arsizio (VA)

- Coached a team of 25 children, enhancing their football skills and team collaboration.

### Tour Guide

**FLABS, Fondazione Lombardia per l'Ambiente**

📅 2018 - 2020   📍 Seveso (MI)

- Increased students' comprehension of physics phenomena by guiding 30+ students through scientific experiments.

### High School Teacher

**High School Sacro Cuore**

📅 01/2021 - 09/2021   📍 Gallarate (VA)

- Teaching students Informatics

## VOLUNTEERING

### Volunteer Sales Assistant

**CUSL**

📅 2015 - 2019

Unwaged work at the University Cooperative "Studio e Lavoro", with the aim of selling essential stationery for university students

### Volunteer Companion

**Alecrim**

📅 2018 - 2022

Voluntary work with disabled people

## PASSIONS

💎 Football

💎 Traveling

💎 Reading