

# Daniele Gadler

**Citizenship:** Italian.

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## WORK EXPERIENCE

### ONE LOGIC GmbH. Frankfurt, DE — Data Scientist

March 2021 - Present

Design, implementation and productionalization of data science solutions in Spark, Python, R, SQL and with the ONE DATA platform for:

- Data-driven supply chain optimization for a large German chemical company.
- DataOps, Data Engineering, data modeling, time-series forecasting

### Südtiroler Informatik AG. Bozen, IT — Data Scientist

October 2019 - January 2021

Business analysis, prototyping, project lead of Machine Learning projects carried out for the Autonomous Province of Bolzano in SAS, SAS Viya, Microsoft Azure, Python for:

- Severe COVID illness prediction based on patients' symptoms.
- Predictive road traffic trends from IoT and weather data and predictive maintenance of road infrastructure.
- Farmer's crop funding automation from satellite images.

### National Research Council. Pisa, IT — Msc. Research Fellow

March 2019 - October 2019

State-of-the-art review, implementation in PyTorch, experimentation of "Federated Quantization", introducing quantization at the client and server level in federated learning reducing data exchanged by 8.70x.

### Free University of Bolzano. Bozen, IT — Research Data Scientist

February 2018 - March 2018; July 2018 - September 2018

Development in R of a distributed and parallel tool for analyzing logs of the ALMA observatory in Chile via Hidden Markov Models.

<https://github.com/DanyEle/hmm>

## WEB PAGES

**Personal Website:**

<https://danyele.github.io>

**Github :**

<https://github.com/DanyEle>

**LinkedIN:**

<https://linkedin.com/in/daniele-gadler>

**Xing:**

[https://xing.com/profile/Daniele\\_Gadler](https://xing.com/profile/Daniele_Gadler)

## SKILLS

**Data Science skills:**

- Excellent: Python, NumPy, Pandas, Scikit-Learn, ONE DATA.
- Advanced: PostgreSQL, Spark, Scikit-Learn, SparkSQL, Flask, SAS, SAS Viya, R.
- Good: PyTorch

**Machine learning theory:**

Acquired from scientific articles, books, courses at the university.

**Other programming skills:**

- Good: Java, C++, C, C#, web programming (Javascript, HTML, CSS).

**Cloud computing:**

- Microsoft Azure

## AWARDS

**2020, Best Graduate Award - Msc. in Computer Science and Networking (€1500):** Top 1.

## **TU Kaiserslautern. Kaiserslautern, DE — Research Fellow**

July 2017 - September 2017

Theoretical and experimental comparison of state-of-the-art Wi-Fi device fingerprinting techniques with physical-layer features.

### **EDUCATION**

#### **Scuola Superiore Sant'Anna, University of Pisa. Pisa, IT. Msc. in Computer Science and Networking**

September 2017 - October 2019

Inter-university two-year Master's programme.

Graduation grade: **110 cum laude / 110.**

Exams' GPA: 29.74 / 30.

#### **TU Kaiserslautern. Kaiserslautern, DE. Bsc in Computer Science – Erasmus+ programme.**

October 2016 - July 2017

One-year exchange Erasmus+ student attending courses in German.

Exams' GPA: 1.63 / 4.00.

#### **Free University of Bolzano. Bozen, IT. Bsc in Computer Science and Engineering**

October 2014 - July 2017

Three-year trilingual Bachelor in Computer Science.

Graduation grade: **106 / 110.**

### **PUBLICATIONS**

#### **“Neural Network Quantization in Federated Learning at the Edge”**

October 2021

“Information Sciences” Journal. Volume 575, Pages 417–436.

#### **“Mining Logs to Model the Use of a System”**

November 2017

ACM/IEEE ESEM '17. Toronto, Canada.

#### **“Bringing the Cloud to Rural and Remote Areas via Cloudlets”**

November 2016

ACM DEV '16. Nairobi, Kenya.

graduate based on the graduation and exam grades and least time to graduate.

**2018, Best Student Award – Msc. in Computer Science and Networking (€2000):** Top 1. student based on exam grades and number of exams passed.

**2016–2017, Erasmus+ scholarship** for one year at the Technische Universität Kaiserslautern

**2015, CRCC Asia Italy scholarship award** for an internship in China.

### **LANGUAGES**

**Italian** – Native.

**English** – C2, Fluent.

**German** – C1+, Advanced.

**Chinese** – A2/ B1, Basic.

### **SIDE PROJECTS**

#### **OpenMined – PySyft**

Contributor to an Open Source PyTorch framework for privacy-preserving distributed neural network training.

<https://github.com/OpenMined/PySyft>

#### **SPADE – Sensing, Processing and analysing Data in IoT**

Implementation of a machine-learning powered system for the predictive maintenance of industrial machines based on a Beagleboard green and an accelerometer using Python.

<https://github.com/DanyEle/SPADE>