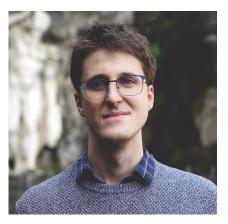
Daniele Gadler

Senior Data Scientist

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WORK EXPERIENCE

• One Data GmbH. Frankfurt am Main, Germany

- Senior Data Scientist April 2023 Now
- Led and developed productive data science solutions in Spark, SQL, Python and the ONE DATA platform
- Led and coordinated a team of up to 4 colleagues for the development of data science solutions
- Developed a tool for supply chain optimization for a large German pharmaceutical company URL
- Prototyped a tool for configuration optimization for a luxury German car manufacturer
- Data Scientist. March 2021 March 2023
- Carried out DataOps, data engineering, data modeling, data visualization to fulfill the above goal
- Created time series and simulation analyses for scenario-based production of medicines
- Led customer communication and management and features' requirements analysis

• Südtiroler Informatik AG. Data Scientist. Bozen, Italy

October 2019 - January 2021

- Led and developed data science and machine learning projects in SAS, SAS Viya, Microsoft Azure and Python
- Created time series analysis for monitoring and preventing the spread of Covid-19 in South Tyrol, Italy
- Led a project for the predictive maintenance of road infrastructure from Google Street View images
- Led the development of a project for farmers' crop funding automation from satellite images
- Prototyped a tool to predict road traffic trends in South Tyrol from IoT and weather data. Repo's URL

• National Research Council of Italy. Master's Research Fellow. Pisa, Italy.

March 2019 - October 2019

- Proposed, implemented and validated experimentally "Federated Quantization" in PyTorch and PySyft

- Introduced quantization in federated learning and reduced the amount of network data transmitted by 8.70x, while still maintaining a high model accuracy for **Recurrent Neural Networks**

- Contributed to the "PySyft" open-source framework for privacy-preserving federated learning. PySyft's URL

• Free University of Bozen - Bolzano. Research Data Scientist. Bozen, Italy

February 2018 - March 2018; July 2018 - September 2018

- Developed a distributed tool in **R** and **Java Hadoop** for analyzing logs of the **ALMA astronomical observatory** in Chile using Hidden Markov Models to model system behavior and identify erroneous states. <u>HMM's Git URL</u>

EDUCATION

• Scuola Superiore Sant'Anna and University of Pisa. Msc. in Computer Science and

Networking - Specialization in Data Science and Distributed Computing. Pisa, Italy.

September 2017 - October 2019

Two-year Inter-university Master's programme at the **honors school** "Scuola Superiore Sant'Anna". **MSc thesis title**: "The Impact of Recurrent Neural Network Quantization on Federated Learning", published in the "Information Sciences" Journal. **Awards**: Top 1. Master's student in 2018 and top 1. 2019 graduate by grades, least graduation time and exams. **Graduation grade**: 110 cum laude / 110.

Exams' GPA: 29.74 / 30.

• Technische Universität Kaiserslautern. Bsc. in Computer Science - Erasmus+ Exchange Year.

Kaiserslautern, Germany

October 2016 - July 2017

One-year exchange **Erasmus+** student attending Bsc. and Msc. university courses in German. **Exams' GPA**: 1.63 / 4.00.

• Free University of Bozen - Bolzano. Bsc. in Computer Science and Engineering. Bozen, Italy.

October 2014 - July 2017

Three-year trilingual study programme (attended lectures in German, English, Italian). Attended an internship in China, studied for 1 year abroad in Germany and graduated within 2 years and 9 months.

BSc thesis title: "Mining Data to Model System Usage with Hidden Markov Models", published at the ESEM Conference.

Graduation grade: 106 / 110.

SKILLS

- Languages: Italian (Native); English (C2, Fluent); German (C1+, Business fluent); Chinese (B1, Basic).

- Data Science skills: Spark, Python, Pandas, Numpy, PyTorch, Keras, Scikit-Learn, Flask, PostgreSQL, SparkSQL, SAS, SAS Viya, **R**, Hadoop.

- **Programming skills**: C++, C, C#, Java, Web programming (Javascript, HTML, CSS), REST APIs.

- **Soft and Delivery Skills**: Teamwork, agile project management, stakeholder and customer management, leadership and mentoring, deadline and priority management.

- Cloud computing: Microsoft Azure.

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.

AWARDS

- 2020, IDC Award - Sustainable Urban Planning and Administration : Awarded for the use of machine learning and satellite images for transforming the process of assigning farming grants in South Tyrol, Italy.
- 2020, Best Graduate Award - Msc. in Computer Science and Networking (€1500). Scuola Superiore Sant'Anna: Top 1. graduate based on the graduation and exam grades and least time to graduate.

- 2018, Best Student Award - Msc. in Computer Science and Networking (€2000). Scuola Superiore

Sant'Anna: Top 1. first-year student based on exam grades and number of exams passed.

- 2016, CRCC Asia Italy scholarship award for an internship at the Mullen Lowe Profero company in China.