

# Denis Broggini

MSc Data Scientist | Software Engineer | Researcher

## CONTACT

### E-MAIL

denis.broggini@outlook.com

### BASE

Lugano, Switzerland

### SOCIAL

You can find me on [LinkedIn](#) and [Twitter](#)

## SKILLS

### PROGRAMMING

#### Proficient

Python, JS

#### Familiar

R, SQL, Java, C, C++, C#, LaTeX, PHP, VisualBasic, Android

#### Frameworks & Tech

Pandas, Scikit-Learn, Numpy, Jupyter, Tensorflow, Keras, Spark, Matplotlib, Docker, Nginx, Flask, Redis, MySQL, MongoDB, Next.js, React.js, Linux

### FIELDS

Applied Machine Learning  
Data Analysis & Visualisation  
Algorithmic optimisation  
Linear Programming  
Neural Networks  
Modelling and Simulation  
Recommendation Systems  
Anomaly Detection  
NLP  
Model Prototyping and Production  
OOP  
Full Stack Development

### SOFT SKILLS

Independence  
Communication  
Leadership  
Management

## LANGUAGES

**Italian:** Mother tongue  
**English:** Advanced  
**Spanish:** Advanced  
**French:** Intermediate  
**German:** Intermediate

## EXPERIENCE

### IDSIA | SOFTWARE ENGINEER, RESEARCHER

March 2019 - Present | Lugano, Switzerland

- Work with the **Imprecise Probability Group** in the Data Science and applied Machine Learning field

### IDSIA | ASSISTANT RESEARCHER

September 2017 - March 2019 | Lugano, Switzerland

- Work with the **Imprecise Probability Group** on applied machine learning projects for industrial optimization and behavior prediction under the supervision of Dr. Piga and Prof. Zaffalon
- Work with the **Robotics Team** on the integration of an HRI interface based on deep learning under the supervision of Dr. Giusti and Prof. Gambardella

### SIPLUS SA | SOFTWARE DEVELOPER STAGEUR

June 2016 - August 2016 | Rivera, Switzerland

- Software development in C#

### SWISS ARMED FORCES | RECRUIT, SOLDIER, SERGEANT

June 2013 - Present | Bière, Switzerland

- Basic training and non-commissioned officer school
- Instructor and squad leader

## TEACHING EXPERIENCE

### SUPSI | TEACHING ASSISTANT

February 2020 - August 2020 | Lugano, Switzerland

- Weekly tutorials for the Operational Research course held by Prof. Mastrolilli for the BSc Computer Science program

## EDUCATION

### MSE IN INTELLIGENT SYSTEMS

September 2017 - February 2020 | Lugano, Switzerland

University of Applied Sciences and Arts of Southern Switzerland (SUPSI)

- Thesis: A Bayesian Approach to Conversational Recommendation Systems.  
Grade: A

### BSC IN COMPUTER SCIENCE

September 2014 - September 2017 | Lugano, Switzerland

University of Applied Sciences and Arts of Southern Switzerland (SUPSI)

- Thesis: Learning to Detect Gestures from Wearable IMUs. Grade: A

### IT APPRENTICESHIP WITH MATURA

September 2009 - June 2013 | Lugano, Switzerland

Scuola Arti e Mestieri Trevano (SAMT)

## AWARDS

2018 Best presentation at PREMIO SWISSENGINEERING TICINO

## PUBLICATIONS

- 2020 Mangili, **Broggini**, Antonucci, Alberti, Cimasoni:  
A Bayesian Approach to Conversational Recommendation Systems  
*AAAI 2020 Workshop on Interactive and Conversational Recommendation Systems*  
2020, New York, USA
- 2018 Giusti, **Broggini**, Albertoli, Dozio, Foletti, Rivero, Bernaschina, Gambardella:  
Machine Learning on Accelerometer Data for Detection of Fence Violations  
*FTAL conference on Industrial Applied Data Science*  
2018, Lugano, Switzerland
- 2018 **Broggini**, Gromov, Giusti, Gambardella:  
Learning to Detect Pointing Gestures from Wearable IMUs  
*Thirty-Second AAAI Conference on Artificial Intelligence*  
2018, New Orleans, USA