ANTONELLO AITA

Data Scientist
Theoretical Physicist

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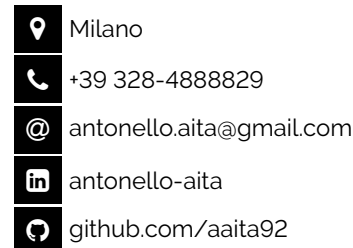
WHO AM I?

I'm a Data Scientist with a strong mathematical background coupled with the ability to communicate findings to both business and IT leaders. I define myself as an analytical curious that loves to decipher complex problems making use of the top technology tools in order to get business and scientific knowledge and then consolidating results in valuable solutions. I'm really passionate in cutting edge technology as **quantum computing** and **AI** on which I'm keep learning and experiencing.

EXPERIENCE

NOW
11/2017

IBM Italy
Global Business Service

04/2020 - NOW **Senior Consultant in Data Science**
Advanced Analytics - Cognitive Process Transformation

01/2019 - 03/2020 **Junior Consultant in Data Science**
Advanced Analytics - Cognitive Process Transformation

11/2017-12/2018 **Packaging Consultant**
Cloud Application Innovation

RELEVANT PROJECTS

07/21 – NOW **Automatic Ticket Solver**
Leading national Telco company
It is a project that aims to build a full cloud tool able to understand and manage tickets coming from the Customer Care, extracting relevant information using Watson NLP services and then addressing ticket to resolution using RPA technology. I lead the analytics project team working on NLP model training and designing resolution pipelines, monitoring the solution performances and facing the client to communicate business results.
```
PMO / Python / Pandas / SQL
```

02/21 – 06/21 **Basic Course on Quantum Computing - Qiskit Package**
Leading national Bank and Academia
The course covered the basics theory of quantum computing and the most famous algorithms implemented using the qiskit package, and then focused on a set of deep dive on different arguments (physics, finance, machine learning) where I contributed as instructor.
```
Quantum Computing / Python / Teaching / Qiskit
```

02/20 – NOW **Email Classifier Tool : POC, Development, Deploy and Maintenance**
Leading national travel and transportation company
It is a series of project started with a POC on Watson AI capabilities and then moved to design and drive in production a mail router tool driven by mail classification and metadata extraction performed by Watson Services. In that project I contributed in solution design, functional analysis and as Project Manager I lead the development team for the delivery of the project, the deployment in the productive environment and the maintenance, interacting with business, IT internal and external providers.
```
Project Management / Watson Cloud Services / OpenShift infrastructure / Kibana
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04/20 – NOW **Electric Power Line Congestion Detection**
H2020 European Community
It is part of a H2020 European Commission funded project that aims to develop a new Energy Management System to improve congestion management on High Voltage grid and to maximize RES production by coordinated use of innovative Dynamic Thermal Rating, short-term forecasts and Demand Side Response resources. On that project I contributed in data understanding, model development and python framework building.
```
Python / CLPLEX
```

10/19 – 01/20 **Renewable Energy Forecasting for Distributed Generation**
leading national energy infrastructure company
Renewable energy forecasting for distributed generation developing of an application aimed at forecast the renewable energy distributed generation using machine learning models. For this project I worked on data exploration and model developing, in direct collaboration with a team of specialists from the IBM Research Lab of Ireland.
```
Python  /  Cloud Platform / Scikitlearn / XGBoost / Pandas
```

EDUCATION

2017 - 2019   **Consulting by Degree**
IBM
Elite development graduate program for consultants

2014 - 2017   **M.Sc. Physics**
Alma Mater Studiorum, University of Bologna
Thesis:
"Extended Hubbard model
with soft-shoulder interaction" (EN)
Final Grade: 110/110

2011 - 2014   **B.Sc. Physics**
Alma Mater Studiorum, University of Bologna
Thesis:
"Dirac's fermions on graphene" (IT)
Final Grade: 105/110

ACADEMIC GRANTS

2016-2017   **Scholarship for thesis abroad**
University of Bologna
Institut de Science et d'Ingénierie Supramoléculaires
- University of Strasbourg

ACTIVITIES

Quantum Computing
Thanks to the competencies developed handling with the IBM quantum tools I had the opportunity join the IBM Q network and taking part in several activities:

12/2019   **Teacher of IBM skills academy pilot course on Quantum Computing**
J.T. Watson Research Center - York Town Eights (NY) U.S.A

03/2020   **Speaker of Qiskit workshop at Singapore University**
On line conference

Data Science
The experience on the subject acquired on the projects I worked on, I had the opportunity to be involved on activities:

04/2020   **Construction of an observability model to estimate the Distributed Generation and deep dive on three based machine learning techniques**
On line conference at BADP master of MIP Politecnico of Milan

PUBLICATIONS

Article
https://www.mdpi.com/2312-7481/7/8/117
Simulating Static and Dynamic Properties of Magnetic Molecules with Prototype Quantum Computers

Article
arxiv.org/pdf/2107.02007.pdf
A Serverless Cloud Integration For Quantum Computing

Article
https://ieeexplore.ieee.org/document/9627062
An innovative short-term congestion management algorithm for the Italian subtransmission grid: the Zonal-EMS Demo of the OSMOSE Project

Published Invention
https://priorart.ip.com/IPCOM/000258553
Method and system to create and deploy Cloud containerized quantum-based web applications using API-exposed quantum computers as back-end.
Publication No. **IPCOM000258553D**

CERTIFICATIONS

03/21   **SAS Certified Specialist: Base Programming Using SAS 9.4**
SAS Global Certification Program
Certificate Verification Number: HJVXKTT22EVQQ03P

01/21   **Introduction to Portfolio Construction and Analysis with Python - Coursera**
EDHEC Business School
License: M5VFVQDKRBXM

09/20   **Qiskit Advocate**
IBM
https://qiskit.org/advocates

11/18   **Machine Learning - Coursera**
Stanford University
License: GK8K2X9J4EXE

LANGUAGES

Italiano - native
English - very good

INFORMATION

Driving license: category B

HOBBIES

Playing keyboards
Playing Chess
Volunteer Civil Protection