

# ALESSIO PASSALACQUA

## Data Scientist

05.07.1978 

Married & three kids 

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http://www.produzioneperfetta.it/blog/ 

https://github.com/alessiopassalacqua 

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## Framework

Five years of experience on R programming and I'm daily using the following set of tools:



- |                     |                           |
|---------------------|---------------------------|
| • R & RStudio       | Programming & IDE         |
| • Caret & H2O       | Machine Learning          |
| • Ggplot2 & plotly  | Interactive visualization |
| • Shiny & rmarkdown | Dashboard & Reporting     |

Demo dashboards are available at: <https://alessiopassalacqua.github.io/passalacqua/apps.html>

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## Experience

2016 – NOW

### R Trainer / R data training, Modena

I'm teaching R language at corporate training course and I'm tutor of students who want to become data scientist. These are the main courses that I've taught:

Courses	Duration	Main Topic
• Data Mining with R	32 h	Clustering, Classification, Anomaly detection, Association Rules
• Applied Statistics with R	20 h	Regression, Dimension Reduction
• Introduction to Data Science	8 h	Data Driven Strategies

More information is available at the following link: <https://alessiopassalacqua.github.io/r-data-training/>

2015 – 2018

### Data Scientist Freelance / Produzione Perfetta, Modena

My main duties are solving problem related to manufacturing process applying data-driven strategies. The predictive models are integrated into dynamic reports (R /rmarkdown) or interactive dashboards (R/shiny) in order to help non-technical audiences to get insight of the own business.

Data science projects	Duration	Problems
• Anomaly detection	6 Months	• Reducing waste
• Quality forecasting	4 Months	• Process optimization
• Energy Forecasting	2 Months	• Energy saving

More information is available at the following link: <http://www.produzioneperfetta.it/>

2015 – NOW

**Math & Science Teacher (Part-time) / Secondary School, Modena**

2009 – 2015

**Post-Doc Researcher / University of Modena and Reggio Emilia  
/ University of Missouri (US) \* 1 year**

Experience in different research topics related to experimental and computational science.

Computational Science	Project Duration	Topic
• Data Analysis	24 Months	Process optimization
• Molecular Dynamics	24 Months	Hydrophobic properties of coatings
• Fluid Dynamics	12 Months	Tribological properties of lubricating oils
• Classical Dynamics	12 Months	Classical Trajectory in fitted energy surface

List of publication are available at: <https://alessiopassalacqua.github.io/passalacqua/publication.html>

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## Education

2004-2007

**Phd in Chemical Science/ University of Modena and Reggio Emilia**

My Phd thesis was mainly focused on computational & quantum chemistry and chemical physics

1997-2002

**Degree in Chemistry / University of Modena and Reggio Emilia**

My studies were mainly focused on chemical-physics, theoretical & quantum chemistry

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## Course & Certification

- DAT213x: Analyzing Big Data with Microsoft R Server (edx – Microsoft)
- QlikView Developer from Scratch (Udemy)
- DAT203x: Data Science and Machine Learning Essentials (edx – Microsoft)
- edX 1.2: Introduction to R (DataCamp)
- Tools and Techniques for massive data analysis (Cineca Bologna)

During these courses and my personal studies, I learned the basic idea and concept of the following languages: Python, SQL and Spark.

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## About me

I do my best when I'm working in an interdisciplinary group and in tasks that require the solution of real problems. I am a person who takes great advantage of intuition, I'm multipotential and I learn more easily by doing.