

PERSONAL INFORMATION

Flavio Aicardi

WORK EXPERIENCE

Since 07/2021

Senior Data Scientist – IBM Italia S.p.a.

He is currently working in the IBM software pre-sales unit, where he is involved in projects that aim to deliver solutions based on IBM technologies. He is mainly involved in Data Science initiatives for Banking, Insurance, Public Administration, manufacturing, energy and other industries.

Projects in data science and data analytics are mainly focused on:

- Provisioning of monitoring tools (based on AI) to analyse and manage the whole client IT systems infrastructure by means of IBM Watson AIOps
- Development of data models to support process mining analyses and identify process improvement areas by mean of IBM Process Mining
- Development of machine learning models to improve client products leveraging on IBM Watson Machine Learning
- Development of data preparation and data understanding pipelines by means of IBM Watson Studio
- Monitoring and management of machine learning models in term of Trustworthy AI and model explainability by means of IBM Watson OpenScale
- Development of machine learning models on distributed systems (Cloudera/PySpark)
- Business development of GenAI use cases based on IBM Watsonx platform
- IBM product showcases to client for dissemination purposes

Code development of data processing pipelines (i.e., data analysis, machine learning, data preparation, and ETL operations) is usually performed in Python or PySpark languages.

In addition, he is involved in the offering process, by defining project scope of solutions offered to the clients based on IBM Cloud, IBM Watson Assistant, IBM Watson Discovery, IBM Cognos and other services available in IBM Cloud Pak for Data.

From 06/2018 to 06/2021

Senior Data Scientist – Bip S.p.a.

In management consulting industry, he was involved in projects and initiatives for Italian domain-leader companies in energy, commodity, telecommunication, and manufacturing. His role encompassed projects where the development of Machine Learning and other analytical models aimed to enhance business value of data. In addition, he was involved in Data Governance projects to re-define enterprises' processes and organizational frameworks, especially where new Big Data technologies were recently adopted (such as data lakes, cloud computing etc.).

Projects in data science and data analytics were mainly focused on:

- Development of machine learning models to support and improve infrastructures management for maintenance and improvement purposes
- Development of machine learning models to support the identification of actionable patterns for marketing purposes
- Development of machine learning models based on process mining techniques to optimize supply chain
- Development of machine learning models based on process mining techniques to map and improve customer experience
- Validation, release, and management of machine learning applications on Hadoop/Spark clusters
- Release of interactive dashboard for data visualization (Qlik, Celonis)

Code development of data processing pipelines (i.e., data analysis, machine learning, data preparation, and ETL operations) was performed in Python, PySpark and R.

Projects in data governance were mainly focused on:

- Design of roles, models, and processes for enterprise data management
- Design of organizational assets to monitor and control data quality on enterprise systems (through dashboards, metrics, KPIs)
- Scouting of tools for data management (data quality, master data management, data catalogs, role-

based workflows management systems etc.)

Other previous positions:

- From 2016 to 2018 Military Airworthiness System Engineer – Italian MoD (on behalf of Creasys S.r.l.) – Rome, Italy
- From 2014 to 2016 Robotic System Engineer – Info Solution S.p.a. – Rome, Italy
- From 2011 to 2013 Stress Engineer – Airbus DE (self-employed) – Bremen, Germany
- 2010 Structural Dynamics Engineer - Avio S.p.a. (internship) – Colleferro, Italy

EDUCATION AND TRAINING

- 2018 Master course for graduate students (2nd level) in
“Data Intelligence & Decisions Strategies”

University Sapienza – Università di Roma (Italy)

Mark 110/110

Main topics

 - Business Intelligence
 - Machine Learning
 - Data Visualization
 - Quantitative management
 - Big Data
 - Research Operations

- 2010 Master course for graduate students (2nd level) in
“Space Transportation Systems”

University Sapienza – Università di Roma (Italy)

Mark 110/110 cum laude (scholarship winner)

Main topics Advanced numerical simulation techniques for aerospace tasks (Aerodynamics, Gas Dynamics, Hypersonics, Structures, Flight Dynamics, Astrodynamics, Attitude Control, Thermal Analysis, Multiphysics)

- 2009 Master’s Degree in
“Space Engineering”

University Sapienza – Università di Roma (Italy)

Mark 108/110

- 2005 Bachelor’s Degree in
“Aerospace Engineering”

University Sapienza – Università di Roma (Italy)

ACADEMIC RESEARCH GRANT

- 2010 *“Modelling of aerospace and management systems for applications to space launchers”*

University Sapienza – Università di Roma (Italy)

Grant Winner (“Borsa di studio per attività di ricerca”, “Bando n. 2-2010, Dipartimento di Ingegneria Meccanica e Aerospaziale”)

- 2022 **“Application design support using Watson Analytics”**

University Sapienza – Università di Roma (Italy)

Academic appointment (“Bando ICE 11/2022, Dipartimento di Informatica”)

PERSONAL SKILLS

- Mother tongue Italian
- OTHER LANGUAGES English (advanced), French (beginner), German (beginner)

Communication skills

- Client front-facing role
- Presentation of projects results to clients (expert and non-expert)

Organisational / managerial skills

- Leadership
- Project management
- Team building

Job-related skills

- Problem solving
- Wide experience in international programs (also governmental, such as NATO, OCCAR, etc.)
- Extended experiences in numerical modelling for aerospace
- Senior System Engineer in design, test, and certification processes
- Work experiences abroad (frequent business travels, almost three years relocated in Germany)

Data Analytics Computer Skills

- Coding in Python, R, PySpark
- Distributed systems for Big Data (Apache Hadoop and Spark)
- Process Mining tools (Celonis, IBM Process Mining, Apromore)
- Databases (Apache Hive, MySQL, MS SQL Server 2016, Apache Pig)
- Jupyter, VSCode, RStudio, Weka
- Data Visualization tools (Matplotlib, Tableau, Qlick)
- Data Science libraries (Scikit-learn, Pandas, NumPy, NLTK etc.)
- IBM Watson Services: Watson Studio, Watson Machine Learning, Watson OpenScale

Other Computer Skills

- Bash scripting
- Work experiences with different operating systems (Linux, Mac, Windows, UNIX)
- Version Control Services (GitHub, GitLab)

Data Analytics Exams and Certifications

- CCA 175 Spark and Hadoop Developer (Cloudera, id. [100-023-310](#), 2020)
- Databricks Certified Associate Developer for Apache Spark 3.0 (Databricks, id. [761882](#), 2020)
- Process Mining Data Engineer (Celonis, 2020)
- Applied Data Science with Python (id. [5ZCMR9H5SXBQ](#), 2019)

IBM Data Analytics Courses

- IBM Cloud Pak for Data (2021)
- IBM Data Scientist Bootcamp (focused on Watson Services, 2022)
- [IBM Watson Assistant Sales Foundation \(2022\)](#)
- [IBM Watson Speech Sales Foundation \(2022\)](#)
- IBM MLOps and Trustworthy AI Sales Foundation (2022)
- IBM Trustworthy AI and AI Ethics (2022)
- IBM Data Governance and Privacy Technical Sales Intermediate (2023)
- IBM Technology Zone Fundamentals (2023)
- IBM Maximo Application Suite Foundation (2023)
- IBM Turbonomic by IBM Sales Foundation (2023)

IBM Career Badge

- [IBM Technology Excellence \(2023\)](#)
- [IBM Blue Core Mentor \(2023\)](#)
- [IBM Recognised Speaker/Presenter \(2022\)](#)
- [IBM Recognised Teacher/Educator \(2022\)](#)

Other Exams and Certifications

- Professional Engineer (Albo degli Ingegneri, Aerospace and Astronautic class, ID: [A31351](#))
- Project Manager Professional (Project Management Institute, ID: [901494](#), 2020)

ADDITIONAL INFORMATION

- Conferences**
- IBM Code@Think 2021 “*Data Science Applied to Real Scenarios*” (Speaker)
- Memberships**
- Ordine degli Ingegneri della Provincia di Roma (since 2010)
 - Project Management Institute – PMI (since 2018)
 - PMI Central Italy (since 2018)