

# Alessandro Marrella

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## Work Experience

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### Data Scientist & Big Data Engineer

Oct 2016 – Now

*AIB, Data Science and Solutions, Dublin, Ireland*

- Designed and developed a machine learning solution able to predict and prevent drop offs in customer online journeys in real time collecting clickstream data from Kafka and processing it with Spark Streaming
- Developed a metadata-driven ETL application using Python, Scala and Apache Spark able to collect data generated from different sources such as SQL Server and SAP, validate and transform it per the metadata and load it into HDFS, Hive and IBM BigSQL
- Developed an anomaly detection system with a Lambda architecture leveraging Hadoop, Kafka and Spark able to identify issues on all the online channels and send alerts
- Consulted a cross-functional group on the development of a new Service Insights solution to monitor and predict issues on core digital services

### Data Anonymization Internship (MSc Thesis Research)

Mar 2016 – Aug 2016

*ABB AG, Corporate Research, Ladenburg, Germany*

- Implemented and extended of state-of-the-art privacy-preserving machine learning algorithms
- Anonymised industrial data for frequent pattern mining and reliability analysis tasks
- Developed a tool to collect data anonymization requirements for data analytics
- Evaluated on the impact of anonymization on data privacy and quality
- Published as first author the paper "Privacy-Preserving Outsourcing of Pattern Mining of Event-Log Data - A Use-Case from Process Industry" @ 2016 IEEE International Conference on Cloud Computing Technology and Science (CloudCom)

## Education

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### Master of Science in **Computer Science**

Sep 2014 – Oct 2016

Major: Business Informatics

*University of Pisa, Italy*

GPA: 29.33/30.0 | Final grade: 110/110 *cum laude*

### Bachelor's Degree in **Business Administration**

Sep 2010 – Sep 2014

*University of Verona, Italy*

GPA: 27.3/30.0 | Final grade: 109/110

### Exchange year (**Erasmus** scholarship)

Sep 2013 – May 2014

*University College Dublin, Ireland*

## Publications

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Marrella, Alessandro, et al. "Privacy-Preserving Outsourcing of Pattern Mining of Event-Log Data-A Use-Case from Process Industry." *Cloud Computing Technology and Science (CloudCom), 2016 IEEE International Conference on*. IEEE, 2016.

## Volunteer

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**Communication Manager** - Erasmus Student Network, Pisa, Italy

Dec 2014 – Jul 2015

**Public Relations Officer** - Erasmus Student Network, Dublin, Ireland

Jan 2014 – May 2015

**Emergency Medical Technician** - Croce Verde, Verona, Italy

Dec 2012 – Sep 2013

## Skills

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<i>Programming languages:</i>	Language agnostic, experience using Scala, Python, Java, SQL, R, C, PHP
<i>Big data technologies:</i>	Spark, Kafka, Hadoop, Hive, IBM BigInsights
<i>Foreign Languages:</i>	<i>Italian:</i> native, <i>English:</i> fluent, <i>German:</i> basic
<i>Other skills:</i>	Teamwork, Research, Reporting, Problem solving, Critical thinking