# **Virgilio Pierini**

BI specialist, mainly focused on data integration and services on proprietary and open source platforms. Specialized in Big Data and Analytics & Machine Learning

With a strong attitude at teaching and problem solving, my aspiration is to use my knowledge in improving everyday people's life through the development of connected applications, especially for young or impaired people, offering my architectural, teaming and strategic expertise.

## **Personal Information**

Phone : +393470635831

Contact : <a href="mailto:virgilio.pierini@gmail.com">virgilio.pierini@gmail.com</a>

http://www.linkedin.com/in/vpierini

Address : via Savigno 1, Bologna (Italy)

VAT# : 03625981208



### Skills

Hortonworks, Cloudera, BigInsights, R, Spark AWS, Azure Pentaho / Talend / SSIS / NiFi Hyperion, Tableau, Qlik, PowerBI DB2/Oracle/SAP HANA OpenSource Technology Stacks (java, lamp, node.js, ...)

# **Objectives**

Work as a Senior Big Data/ BI / System Integration Architect providing high quality solutions in an international context, challenging for both my professional and personal experiences.

# **Projects**

Streaming Analytics on Industry 4.0

AVI Private Company; Engine Manifacturing; Italy

Plant streaming data collection

The project aimed at collecting real time data from testing facilities, providing a real time dashboard and strategic KPIs. Data was subsequently stored for advanced analytics, predictive allocation of resources and maintenance. The solutions was backed by a full ELK stack, hosted on AWS cloud infrastructure.

## **CRM Cloud data integration**

**Cnhi** Private Company; Industrial Manifacturing; Europe

The project involved a full Microsoft stack -Azure CRM, SQLServer, SSIS- with the objective of ingesting external data into custom CRM Entities. Challenges were on the size of data given the limited throughput of Cloud Connectors and the need to abstract final users from any technical detail of infrastructure.

### Telco Datalake on Cloudera platform

Zain Private Company; Telecommunications; Kuwait

More than 20 source systems, 1PB storage per year

The project aimed at creating a datalake infrastructure from siloed Oracle source systems to a Cloudera Hadoop Full Stack. Many Big Data Technologies where involved, from ingestion capabilities like Sqoop or Flume, to data manipulation with Spark, whose final intent was to enrich the existing SAP Hana solution.

## **Industry 4.0 Waste Management**

SAP Cloud Platform Challenge 2018 Private Consultancy; Utilities; Italy

Development of a Cloud Based - SAP Leonardo solution for IoT in waste management use case. Definition of landscape, actual implementation and connection with blockchain services for fraud prevention

### Fleet Management

FleetMonitor24 Private Company; Services; Italy

Infrastructure setup for data ingestion from On Board Diagnostics (OBDII) and Reporting on PowerBI platform. Insights and Gamification.

### **Industry 4.0 Warehouse Management**

**Proof of concept** Private Company; Retail; Italy

Position management for automatic movement machines on BT LE Beacon technology with machine learning

## **Analytics for Legacy Systems**

Comune di Torino City of Turin; Public Company; Italy

An existing Datawarehouse System had to be revamped to allow the creation of data services among many Public Administration offices. The uncertainity about workloads, the web channeled interface and the variety of sources, suggested a Big Data approach to substitute existing reporting and leveragin ML for providing new, innovative, services. Spark, and especially its in-memory capabilities, was chosen as the core solution for feeding legacy reporting and new services, as a transparent modelling layer on top of cold data.

### **Cloud Analytics**

**Prometeia** Private Company; Financial Advisory; Italy

Migration to AWS Lambda Architecture and no-sql DynamoDB.

Creation of a Parallel Execution Layer on cloud for Datascience. The DS team, skille on python and ML, needed a scalable platform for delivering analytics on complete data sets. The Spark+Cloud environment proved to offer them the benefits of horizontal scalability without exposing too many details of the implementation.

## **Sentiment Analysis**

Comune di Brescia City of Brescia; Public Company; Italy

Twitter and Instagram analysis during Mille Miglia historical car race. Collateral graph analysis for Brand impressions in pictures

## **Cyber Security**

**Proof of concept** Private Company; IT Services;; Italy

Neural network training for Intrusion Detection Systems

### **IoT Predictive maintenance**

Alstom Transport Private Company; Railway; Italy

Infrastructure setup for data ingestion and Spark Analysis. Focusing on Predictive Maintenance and SLA meeting the customer wanted to apply Machine Learning techniques to identify dangerous situations and take action before breakdown. Spark was the main data manipulation language for feeding Data scientists team.

### **Time Series validation**

Arpa Emilia Romagna Public Company; Climate; Italy

Statistical validation of data quality for integration of external metering systems in unified weather database.

# **Professional Experience**

## **Big Data and Cloud Evangelist**

Clickode MEA Private Company; IT Services and Consultancy

September 2016 - Present

Big Data and Analytics for private sector

**IBM Bluemix** 

Microsoft Azure and PowerBI

Hana Cloud architectures

**Achievements**: International challenges, mid-big size customers, architecture design and deployment

# **Business Intelligence Development manager**

**GPA-Group** Private Company; IT Services and Consultancy

February 2016 - July 2017

Business Intelligence for private sector

IBM/Oracle/SAP architectures

Big Data - Cloud trainer for IBM Solutions and Microsoft Windows PowerBI

Achievements: Team leader on BI projects with focus on SAP Hana and statistics

## Clickode R&D, Trainer for MEA

**<u>Clickode</u>** Private Company; IT Services and Consultancy

January 2014 - Present

Teacher on Datawarehouse, open source, Big Data technologies

IBM P8 virtualization architectures and OpenStack

MAAS, IAAS, SAAS, PAAS architectures

Achievements: Power architectures on Large scenarios, teaching to an audience, customer interaction

## **Big Data Architect**

**<u>Cineca</u>** Public Company; Higher Education Consortium

January 2015 – January 2016

Team leader for new Data Scientists office

Hortonworks / BigInsights platforms

Spark/R statistical methodologies

Achievements: developent of BigData applications for IoT, Social Media Analysis and Machine Learning

### **Datawarehouse Administrator**

**Cineca** Public Company; Higher Education Consortium

November 2007 – January 2015

Datawarehouse e System administrator on Oracle/Windows.

Hyperion System 9.3/11.1.x technical architect

Pentaho Business Analitics architect

**Achievements**: delivery of embedded Pentaho solutions, Hyperion Planning solutions and integration of both systems together

### **Datawarehouse specialist**

CSE Centro Servizi Bancari Private sector; Finance

January 2006 – October 2007 (1 year 10 months)

Enterprise DataWarehouse Projects

Analysis, modelling and development in Hyperion

Dev team leadership

Infrastructure design, scaling and maintenance of hosting services

**Achievements**: BI Modelling and Hyperion experience.

### **DBA / System Integrator**

CSE Centro Servizi Bancari Private sector; Finance

October 2003 – December 2005 (2 years 3 months)

DBA on IBM DB2 and J2EE support on WebSphere AS

Consolidation of third part products into company processes and methodologies.

Internal support for code builds and deployments

Achievements: DBA and J2EE experience

### Java developer

## NierIngegneria Private sector; Services

September 2000 – September 2001 (1 year 1 month)

Web developer for Sicily agrometeorological Geographic Information System

# **Education**

# Bachelor of Engineering, Computer Engineering 100/100 with merit

University of Bologna 1996 - 2003

Thesis on "Audio Connection in a Bluetooth environment" with Ducati Sistemi

# **Training**

2016 Standford Online Statistical Learning
2015 Big Data Strata Conference in NYC
2012-2013-2014-2015-2017 Pentaho Community Meeting
2011 Pentaho Advanced Training
2009 Microstrategy Administration Camp
2005 Hyperion Essbase Bootcamp

# **Languages**

Italian (Native proficiency)
English (Professional working proficiency)
French (Elementary proficiency)