

## **Data-Intensive Software Services**

qwertee.ic

We cover the full scope of data-intensive application development. From data engineering, machine learning to production-ready cloud solutions



#### **Our Vision Is To Achieve Business Value**

We turn data-projects into business value and we support you in delivering new opportunities for your company





#### **Share Growth**

We consult with you, discuss all outcomes for your projects. We propose enhancements to your existing data infrastructure.

We build production-ready data-intensive solutions

## **Promote Expertise**

We maintain and deliver high-level of skills and expertise from top-tier data engineers and data scientists



## **Our Services**



## Consulting

We create individual solutions to optimize your business processes. Our experts will support you in starting your company's Data journey with a tailored strategy



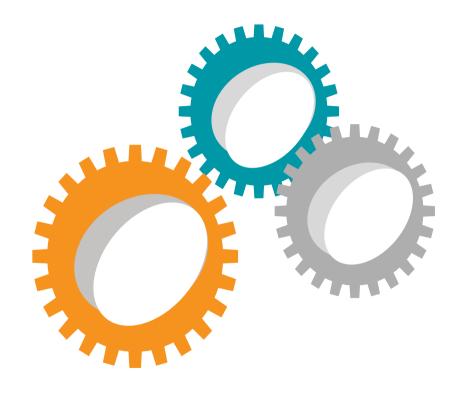
### **Implementing**

From proof of concept to a built-in deployment ready solution, we will develop your architecture and transform your data into information, to create business value for your board and customers



### **Training**

We provide on-site hands-on workshops and training courses in Machine Learning and Data Engineering for your teams







## **We Support**



### **Enterprises & Corporations**

Leverage massive amounts of process, operational and transactional data to wring out efficiency, cost savings, improve customer interactions and evolve market ecosystem



## **Small & Mid-Sized Enterprises**

Streamline operations, increase productivity, create predictive algorithms and personalization patterns to increase market value



### **High-Growth & Late Stage Startups**

Turn data into competitive advantage and disruptive products, to stay on top of the market or get ready for IPO



#### **Early Stage, Funded Startups**

Develop core data functionalities in order to scale up and move to the next Seed Round



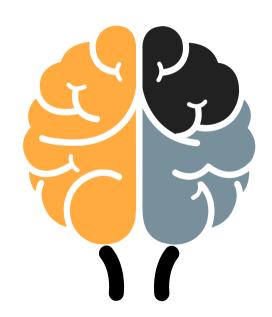
## **Data Engineering Service Lines**

## **Data Analytics And Quality Checks**

Running quality checks such as data overlap, data duplicity, relative delta, prior to data ingestion

#### **Data Transformation**

Transforming data into information prior to analysis



## **Data Migration**

Migrating data from one technology to another, such as from Apache Hive Cluster to Apache Spark Cluster

## Data Pipeline Troubleshooting And Optimization

Data Pipeline Design And Implementation, Building pipelines with modern tools, such as Apache Spark that can process the entire data warehouse into a single output ready for analysis, Designing easy-to-use APIs to speed-up your data scientists

## **Use Cases**

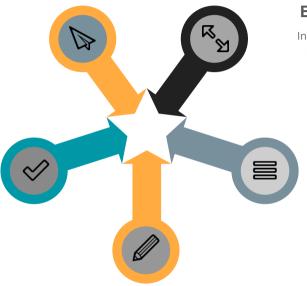


## **Spark Pipeline Enhancement**

From POC to production ready, reimplement all features in order to increase readability, maintainability and extensibility respecting the same time, memory and Azure budget constraints for each execution

## **PostgreSQL Performance**

By correctly partitioning the PostgreSQL table, we improved the read/write time by 5x



## **Parquet AWS S3 Writes**

We improved write performance by 10% by correctly configuring Apache Spark and AWS EMR

## **ElasticSearch Caching Solution**

In order to satisfy the high content streaming throughput requirement of the client, we chose ElasticSearch as a caching solution because of its scaling potential, read performance and ingestion rate

## **Spark OOM Optimization**

Analyzing the data revealed a skewed dataset. Properly repartitioning reduced the memory consumption caused by excessive shuffles



## **Data Science Service Lines**





## **Exploratory Data Analysis (EDA)**

We analyze your data and produce reporting insights (data visualization, statistics summary, outlier analysis)



## **Predictive Analytics**

We help you move beyond what happened and gain insights into what might happen in the future to solve difficult challenges, leverage new opportunities, improve operations, optimize marketing and sales operations or introduce fraud detection processes



## **Time Series Forecasting**

We analyse time series data in order to extract meaningful statistics and to build predictive values based on previously observed values in financial segments such as stocks or crypto tradings, customer buying behavior, fraud detection or sensor data

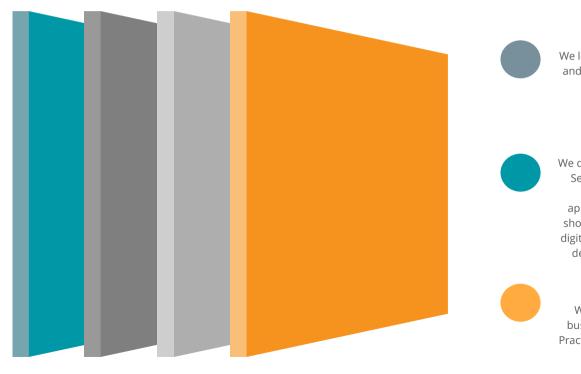


## **Data Mining Solutions**

We use statistical analysis and mathematical algorithms, we design Data Mining Solutions that analyse countless data sources and uncover patterns and correlations, ie. game telemetry datasets



## **Machine Learning Service Lines**



## **User Behavior Analytics**

We look at patterns of human behavior and apply statistical analysis and algorithms to detect anomalies and potential threats. Practical applications reveal new insights into customer behavior in eCommerce, Online Gaming, IoT

## **Computer Vision**

We design algorithms such as Image Recognition, Object Detection or Semantic Segmentation, so that your systems can recognize and process images just like humans and automatically perform appropriate analysis. Practical applications examples: augmented shopper experience in Retail, navigation systems in Transportation, digital diagnostic or image clarity improvement for medical scanning devices in Healthcare, home banking loan evaluation in Banking

## **Recommender Systems**

We design Recommendation Algorithms to support commercial businesses predict ratings their users would give to their products. Practical applications examples: streaming services in Media or Music, rating features in Travel, Retail, Banking



## **Use Cases**

## Computer Vision For Quality Assurance

Crack detection on the surface of semiconductor in a production environment

# Computer Vision For Asset Management

Tracking valuable assets in an industrial context



### **Customer Churn**

Predict which customer is at high risk for churn

## **Customer Segmentation**

Dividing customers into groups of people with similar characteristics in order to better market products and services

#### **Failure Prediction**

Predict failures and quality issues in equipment to avoid downtime and reduce maintenance costs

