
Giuseppe Calabrese

Software Engineer

 London / Bari



Born in the South of Italy.

BSc Computer Science @ University of Bari.

Music and Drumming.

EXPERIENCE

SteelEye, London - Data Engineer

June 2022 - April 2023

Main activities and responsibilities: Working in the Data Integration team, I have been driving ingestions of data polled from different data vendors used by financial firms. The main activity is related to the development of ETL pipelines to the extent of meeting MiFIR/MiFID compliance, considering performance and time sensitivity in a waterfall workflow. The end results are client-facing reports for orders, transactions and communications in the financial space. On the development side, I was part of testing the new architecture mitigating concerns related to static and dynamic dependencies of data processing tasks considering time sensitivity and reliability of transformed data. Also, issues related to observability of faulty processing pipelines were addressed.

Acquired skills: Elasticsearch, Python 3, Prefect, Pandas, AWS.

Auctane, Metapack, London - Software Engineer

January 2020 - May 2022

Main activities and responsibilities: In Dorpheus team, I have been working on the complex infrastructures supporting customer facing services, striving for zero-downtime migrations, providing and actuating bullet proof migration plans. I have improved the reliability of the system, reinventing TDD practices for infrastructure code and monitoring changes with the aid of functional programming tools.

In Nexus team, I have enhanced and automated the execution of the DB operations, I have improved the reliability of the system implementing testing scenarios at different levels - e.g. unit, integration, end-to-end test scenarios. I have addressed the load increase experienced for the pandemic outbreak, deploying the monolith in a container orchestration setting in the cloud, using cutting-edge IaC and automation tools. TDD of the new microservices-based architecture, using imperative-shell-functional-core programming model with a special interest in service integration and NoSql database design. I have

invented patterns to unleash the expressive power of the programming model and pictured previously unseen cloud-based solutions to problems outside the scope of a single domain using UML diagrams, integrating different messaging systems in an asynchronous serverless fashion.

Inventions: Microarchitecture based on converters (Convertor pattern), DynamoDB table cleaner (Christmas toy), Automated plan for AWS RDS live-service switch-over (Goodbye Malinconia).

Acquired skills: UML, AWS, DynamoDB, Java, Spring Boot, Scala, Groovy, Terraform, Jenkins, NewRelic, PagerDuty, ELK.

MBDA, Missile Systems, Rome - *R&D Intern*

June 2019 - October 2019

Main activities and responsibilities: As part of my master degree at Sapienza, University of Rome, I have redesigned and implemented the company's main information system in the cloud computing setting, using the latest orchestration tools for microservices oriented architectures keeping performance issues that typically arise in the military context under control.

Acquired skills: Kubernetes, Docker, gRPC, C++.

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KDDE Research Group, University of Bari - *R&D Intern*

January 2018 - June 2018

<https://github.com/Wuj94/hyperspectral-change-detection>

Main activities and responsibilities: During my thesis, at KDDE research group, I have designed and implemented a change detection pipeline for hyperspectral remotely sensed images. These data are published by space agencies for the public to understand physical phenomena. Supervisor: Mrs. [Annalisa Appice](#). Final grade is 110 (full marks).

Acquired skills: UML, Hadoop, Java, Python, Bash.

PERSONAL PROJECT

Position Processing

Asynchronous, asymmetric nonREST API for stream processing.

September 2023 - Today

<https://calabrese-giuseppe.atlassian.net/>

Please reach out for a screen share presentation

Tech stack: Scala 3, Typelevel, Gradle, Kafka, Avro, Spark, Redis, Postgres

EDUCATION

Scala 3, Apache Spark & Typesafe Akka - *Rock the JVM*

April 2024

- **ADVANCED SCALA:** ude.my/UC-9924f84a-3c61-40c1-8f94-2044c7dc1429
- **BIG DATA ESSENTIALS:** ude.my/UC-63f05cf9-3582-4cfb-8dcd-4979b1fd1001
- **SPARK STREAMING:** ude.my/UC-a35015bc-67fd-4cb5-a7db-34dff993d7e9
- **AKKA ESSENTIALS:** ude.my/UC-c6a1f613-feff-49d0-9eca-ec44d0fb3dd0

Fundamentals Accreditations - *Confluent*

April 2023

- **APACHE KAFKA:** credential.net/5dc835cf-c5a8-469a-9aba-dd829be1413d

AWS Certified Solutions Architect - *AWS Training*

April 2022

- **ASSOCIATE:** 5cvz7bllgmbqqms2

MSc Data Science - *Sapienza, University of Rome*

September 2018 - June 2019

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Some of the assignments for these courses can be found on my website (github.com/Wuj94). An official Transcript of Records can be handed over as proof.

English Certificates - *Cambridge University Press & Assignment*

May 2018 - July 2018

- **CAE:** Reference Number 187124025011
- **FCE:** Reference Number: 185IT0642024

BSc Computer Science - *Aldo Moro, University of Bari*

September 2014 - December 2017

Overall Classification of the Qualification: 110 out of 110

An official Diploma Supplement can be handed over as proof.