# Antonio **Gelameris**

SCALA FUNCTIONAL DEVELOPER

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*"In order to understand recursion, one must first understand recursion"*

## Professional Summary ────────────────────────────────

I'm a **Scala** developer with a passion for creating elegant solutions. As a backend programmer with five years of career experience, I have developed fast and reliable applications. I am a **self-learner**: I have started a career as a programmer despite it not being the core of my academic education. In my training as a **physicist**, I have acquired skills that allow me to have a different view of the problems. I am a Scala enthusiast, willing to contribute as much as possible to the OSS community. I **keep studying** to enhance my knowledge and open up to new **libraries/technologies** in my spare time. Currently, I'm in love with **Cats Effect** and all the other **Typelevel**'s projects.

## Experience ────────────────────────────────────────

### LastMinute.com                                                                                     *Chiasso, Switzerland*
SCALA SOFTWARE DEVELOPMENT - DATA ARCHITECT SPECIALIST                                     *Dec. 2019 - Present*

- In order to improve performances and fault tolerance I redesigned an application that was heavily relying on Avro serde, converting the whole process in a *Array[Byte] => Array[Byte]* mapping, clustering it using Akka plus its **Grpc** communication module and deploying it on **Google Cloud Platform**.
- I implemented an optimized **MySql** to Vertica replicator that reads and deserializes binlogs discarding the useless operations. It uses **ANTLR** to parse the MySql grammar to create the **AST** used as internal representation for the DDL statements. The internal data structure used to hold DML transactional data is an **Adaptive Radix Tree**.
- Every project was developed in conjuction with at least one junior colleague, in order to **mentor** about Scala, FP, cloud technologies, application design, etc.

### Bitrock s.r.l.                                                                                          *Milan, Italy*
SCALA SOFTWARE DEVELOPMENT                                                                 *Dec. 2018 - Dec. 2019*

- For a telco customer I contributed to develop a real time radio towers' kpi monitoring application using **Spark** and **Scala**. The application main goal is to process a big amount of data to check if some quality threshold has been exceeded and to raise an alarm. Using Cats to implement the validation logic and functional error handling of the configuration companion microservice has been the most intriguing challenge.
- I built a POC using **Kafka Streams** Scala API to monitor and process in real time a **WebSocket** channel of geolocalized events to produce aggregated information and metrics.

### FacilityLive OpCo S.r.l.                                                                              *Pavia, Italy*
JAVA SOFTWARE DEVELOPMENT                                                                   *Jan. 2017 - Dec. 2018*

- I have been solely responsible for the development of more than 10 **Microservices** using **Spring Boot**. This microservices represented the connection and orchestration layer between a custom search engine platform deployed on **Kubernetes** and the data processing layer developed using **Spark** and deployed on **Mesos**. Every customization of the multi tenant application had to trigger a Spark job responsible of producing **Lucene** indexes whose search engine custom search was based on.
- I participated in the creation and design of a data parser that included an **HTML crawler/spider** using **Akka** to gather metadata to be used as search engine indexes.

### SDG Consulting s.r.l.                                                                                  *Milan, Italy*
BIG DATA ANALYST                                                                           *Jun. 2016 - Jan. 2017*

- I was the responsible for the design, installation and the maintenance of **IBM Watson Explorer** Products (the entire BlueMix Suite) for banks, pharma and telco customers.
- I have migrated 10000+ store procedures from Microsoft SQL Server 2008 to IBM PureData forAnalytics for a client, in order to reduce query execution times by an order of 3 magnitudes.

ANTONIO GELAMERIS

# Skills

### Scala/Java Stack
- **Cats** and many **Typelevel** libraries, whole **Akka** suite
- Solid Knowledge of **JVM Internals** and **Scala Type System**
- Various RDBMS & NoSQL DBs APIs, Serialization Algorithms, Communication Protocols, Build Tools, etc

### Other
- Solid Knowledge of both **Functional Programming** methodologies and **Object Oriented Design Patterns**
- Very interested in Category Theory and theoretical aspects behind functional programming
- **Kafka**, **Kafka** Streams
- Big fan of **Test Driven Development** methodologies
- Currently studying for **LFCS** certification
- Currently studying **Rust** and **Haskell**
- Well aware of **Agile** methodologies

### Soft Skills
- Very good **relationals skills** and good team mate used to work in 10+ members remote team
- Able to work in high stress, fast paced, and dynamic situations even **under pressure** or close to a delivery
- Ability to solve problems in a **fast** and **reliable** way, or to address them to the correct person
- **Self learner** with a passion for mentoring and training people
- Great communities lover and participant

### Languages
- C1 Proficiency **English**
- **Italian** Native Speaker
- A1 Certified **Greek**, B1 Proficiency

# Certifications

### Lightbend
- **Lightbend Scala Language Professional - Level 1**
- **Lightbend Akka for Scala Professional - Level 1**
- **Lightbend Akka Streams for Scala Professional - Level 1**

# Presentations

### Lessons/Presentations
- **Practical Typeclasses** @ JUG MiTo (Italian)

# Teaching

**University of Pavia**                                                                 *Pavia, Italy*

### Lessons/Presentations                                                                *2018 - 2019*
- Presentation **"Basic Informatics, Coding and Tech Languages"** at Technological Innovation and Law Winter School (TIL 2019)
- Series of 2 **"Programming Basics"** lessons for the "Law, Science and New Technologies" class

# Education

**University of Pavia**                                                                 *Pavia, Italy*

### Bachelor's degree in Physics                                                         *2008 - 2016*
- Thesis Title: **Entropic sampling in spin sistems**
- Developed code for numerical simulation of high-interacting spin systems in Potts' model