## SOFTWARE DEVELOPER

## Giunio De Luca

Contact email: giuniodl@live.it

Phone number: +32 465 11 21 97 (WhatsApp as well)

GitHub profile: giunio-prc (Giunio) LinkedIn: Giunio De Luca | LinkedIn

My professional experience as a software engineer spans across research, sports, and energy sectors, working with both public and private organizations.

My expertise includes robust API development, and I am the author of: FastAPI Cookbook (Packt Publisher).

Actively engaged in the tech community, I participate as a speaker at major conferences across Europe, such as PyCon Portugal 2025 and PyCon Poland 2025.

Chek my latest public project at RAG powered chatbot

## **SKILLS**

- Clean-code, Clean Archi
- Test-driven development
- OOP
- Design Patterns
- · SOLID principles

- Python
- JavaScript
- Cloud Computing
- Docker
- Terraform

- Git best practices
- Dev-Ops
- Concurrency programming
- Cross OS development
- HTML, JavaScript and CSS

## WORKING EXPERIENCE

06/2024 - 07/2025 FULL STACK DEVELOPER ENGIE SA LINKEBEEK, BELGIUM - CONTRACT Engie SA is French big corporate in the energy field and part of CAC40 stock index.

I joined the Research & Innovation division in Flanders region in Belgium to develop company applications and provide IT support to researchers. In this role accomplished the following tasks:

- Supporting and guiding data scientists in deploying ML models from Notebooks to packaging
- Develop and maintain a complete application (backend in FastAPI, frontend in React, geospatial data with xarray, numpy and pandas, and MongoDB for data storing)
- o Introducing test driven development on the frontend with vitest
- Setup team cookiecutter templates to streamline delivery process and development
- o Handling stakeholder communication

01/2025 - 06/2025 PYTHON COACH (PART TIME),

TEKNO FAMILY

BRUSSELS, BELGIUM

Tekno Family is a charity organization that promotes coding education programs to teenagers who grew up in difficult Brussels neighborhoods.

I was coach for the afterwork course Data Science with Python (30 hours)

03/2024 - 06/2024 TECHNICAL AUTHOR,

PACKT PUBLISHER COPYRIGHT CO

COPYRIGHT CONTRACT

Packt Publisher is a major editor and e-learning provider in the tech industry worldwide. I have been the author of the book "FastAPI Cookbook". The cookbook aims to be a reference for developers that need to build robust applications with Python to support high traffic interactions.

It covers all the knowledge required by a back-end developer to deliver modern, secure and efficient API. Some of the recipes cover:

- o connecting applications to SQL (SQLite Postgres) and NoSQL (MongoDB) databases.
- Securing endpoints with OAuth2.

- Benchmarking and profiling FastAPI applications.
- Exposing LLM models and RAG LLM applications.
- Setting up Websocket and securing practices.

The book is available on the major stores here is the AWS Link.

The book has earned top rankings in several BookAuthority organization lists, including:

3<sup>rd</sup> in Best FastAPI Books of all time, 5<sup>th</sup> New Api Development Book

#### 04/2023 - 03/2024 PYTHON DEVELOPER, CORESO

BRUSSELS, BELGIUM - CONTRACT

Coreso is one of the regional coordination centers for European Transmission System Operators, responsible for the Southwestern Europe borders.

I joined the Internal Software Development (ISD) team to work on the development of web applications to support energy trade operators in their daily work.

In this role, I accomplished the following task:

- o test-driven development (pytest dependency injection and test parametrization)
- Setup Integration testing.
- Event driven programming (Kafka).
- o Setting up Database management with Postgres.
- Backend development with FastAPI (Django-like framework for backend).
- Basic Front-end development with Vue JS, Javascript, HTML and CSS.

#### 10/2022 - 03/2023

### PYTHON SWE GORILLA

ANTWERPEN, BELGIUM - FULL TIME

Gorilla is developing a data-driven platform for energy retailers.

The company aims to empower energy retailers with solutions for pricing, forecasting, and reporting.

I joined the team to contribute to the back-end API of their SaaS platform.

In this role, I executed the following tasks:

- o defining features for the back-end API (Python) with in-house framework
- o Managing database migrations with alembic library.
- o Refactoring and improving legacy code.

### 09/2020 - 09/2022

## PYTHON SWE, ROYAL BELGIAN FOOTBALL ASSOCIATION BELGIUM

Royal Belgian Football Association is the governing body of football in Belgium.

As a Software Engineer within the organization, I worked on several cloud-based projects.

One of the projects I contributed to the development of the backend of the official app.

Overall, I carried on with the following tasks (partial list):

- o Implement comprehensive testing, including unit tests, integration tests with pytest and Behave, and performance analysis to guarantee software quality and performance.
- o Design, develop and deploy data ingestion pipeline solutions to select the national team.
- o Guide and mentor 5 internships to drive skills transfer and growth.

During my period working at RBFA, I contributed to winning the <u>2021 UEFA GROW AWARDS</u> for the digital strategy, awarded by Louis Figo.

## 11/2015 - 06/2020

## RESEARCHER, LABORATOIRE EM2C GIF-SUR-YVETTE, FRANCE

The EM2C laboratory, a CNRS (National Center for Scientific Research) unit and a laboratory of CentraleSupélec, combines academic research with applied studies in the fields of transportation and energy.

I have been hired to work on the <u>Clean-gas project</u> of the European Commission.

During my work, I carried out the following main tasks:

- Model and implement combustion phenomena in HPC parallel code using Fortran90 and OpenMPI
- Develop data pipelines in Python to handle remote h5 databases, utilizing Python libraries such as Pandas, NumPy, Matplotlib, SciPy

The work culminated in a published manuscript, which can be found at the following <u>link</u>.

## **EDUCATION**

### **PHD**

## DOCTOR IN ENERGETICS, SPECIALISATION IN COMBUSTION SIMULATION

École CentraleSupélec, Gif-sur-Yvette, France

Graduation 06/2021

# POST-GRADUATE RESEARCH MASTER NUMERICAL AND ENVIRONMENTAL FLUID DYNAMICS

Von Karman Institute, Sint-Genesius-Rode, Belgium

Graduation 06/2015

### **MASTER DEGREE**

## INDUSTRIAL ENGINEERING

University of Basilicata, Potenza, Italy

Graduation 04/2014

## PROFESSIONAL TRAINING COURSE FOR EXECUTIVES JAVA AND JEE

Inti Formation, Paris, France

October to December 2019

## **CERTIFICATIONS**

Kubernetes and Cloud Native Associate 05/2023

Google Cloud Certified Professional Security Engineer 03/2023 Google Cloud Certified Professional Network Engineer 02/2023

Google Cloud Certified Associate Engineer 04/2021

## SPOKEN LANGUAGES

English fluent
French bilingual
Italian native sp

Italian native speaker

Dutch basic knowledge