LUC BERTIN

Freelance Python Web Developer & Data Scientist

Paris, 75004, France
+33 6 66 79 08 79

dev@lucbertin.com
github.com/Luc-Bertin
Website for my students
Malt profile

WHO AM I?

Freelance web developer from France, with data science and AI background.
Taught ML / DL to MSc students, then specialized into web development.
If you look for me, you probably can find me reading documentation.
You can click on my freelance profile link, teaching website, or GitHub account for further projects details or clients' reviews.

EXPERIENCE

2024 – 2024
June – current

Senior Backend developer — Payplug
Freelance

Payplug is a payment processor company acquired by BPCE group (Banque Populaire Caisse d'Epargne), France's fourth largest bank. My role is to unify the different platforms following acquisitions from BPCE using a common authentication system based on Ory stack components (Hydra, Kratos) and a flexible permission system using Ory Keto, leveraging OAuth2 flows (Authorization Code, Client Credentials, Refresh Token).

`Python` / `Ory Hydra` / `Ory Kratos` / `Ory Keto` / `JWT` / `OAuth2`

2023 – 2024
September – April

Backend engineer — Back Market
Freelance

Back Market is a global marketplace operating in multiple countries, focused on certified, refurbished electronics with the aim to reduce e-waste. As a member of the Financial Team, I focus on designing ETL processes for reporting and financial purposes.

`Python` / `Airflow` / `Composer` / `Terraform`

2022 – 2023
June – July

Backend developer — Shadow
Freelance

Shadow is a competitor of Google Stadia, a cloud gaming service company.
I joined them as a backend developer in June last year, just as they were creating a new core business platform to replace their legacy PHP platform. I quickly gained more responsibilities and took charge of creating their new B2B branch of services. I find this project particularly engaging because of its focus on Domain-Driven Design principles and the opportunity to have regular discussions on architectural decisions with talented colleagues to answer Product team needs.

`Python` / `FastAPI` / `Django` / `Flask` / `Bazel` / `Redis Queue` / `pytest` / `Vue.js`

2021 – 2022
July – July

Lead Backend developer — Carrier
Freelance

Carrier was using an expensive licensed software installed on a remote bootable PC/VM, which was neither scalable nor intuitive.
The goal was to create a proof-of-concept for a cloud-based collaborative online tool, with a feel of real-time, similar to tools like Miro or Google Docs, for thermodynamics simulations.
This project was my favorite, as we started from scratch and I had full autonomy over the design architecture, code implementation, processes (testing, CI/CD), frameworks, infrastructure components, and deployment (via AWS). Leading the backend development for the expanding international team, I adapted my communication and collaboration approach while also defining technical specifications effectively to account for the disparities in team members' profiles and time zones.

`Python` / `AsyncIO` / `FastAPI` / `Socket.io` / `Websocket` / `Pydantic` / `Dataclasses` / `CI/CD` / `RedisGraph` / `Neo4j` / `Docker` / `Redis` / `Redis-PubSub` / `AWS, AWS Lambda, AWS Beanstalk, AWS ElastiCache, AWS S3`

2021 – 2021
May – June

Python developer — Exomind
Freelance

Created of a software in Python for workstation configuration compliance analysis (xccdf). The software had parsers and runners to extract and validate configuration data of various formats and submit it to validation rules expressed in XCCDF. The client wanted a solution that could evolve over time, with the goal of enabling the team that would take over from me to develop their own parsers and runners to integrate with the tool.

2021 – 2021 Jan – March	**Backend developer** Freelance	Memorandum

Lead dev support for a tech startup on entertainment for kids:
Creation of a dashboard to monitor users actions. Code review and documentation, containerisation and orchestration of the micro-services, app for Mac / Windows (Quasar, VueJS, Vuex) + Single Page Application.

```
Python    / Google PubSub   / Vue.js, Vuex / Flask / Docker / CI/CD / TravisCI /
Django  / Sphinx  / Quasar  / Django Rest Framework  / nginx, certbot
```

2019 – 2020 Aug – Dec	**Python developer** Freelance

Part time missions while teaching:

- Data Mining and ML for an e-commerce website.

- Created automated tests suite to assess that the internals of a user order creation are working correctly.

- Creation of web app to create, edit and register invoice data for entrepreneurs.

- Created a Mac and Windows GUI app that scrapes data on-demand, for a digital marketing agency. Client: Flash Design.

- Web-scrapping of dynamic contents for a startup in sport games (Selenium, reverse engineering, Postman). Client: Content Arena.

```
Python   / Django   / Qt   / BeautifulSoup   / Selenium
```

2019 – 2021 September – Jan	**Affiliate Teacher**	Schools: ESILV, IIM, IPSI

Instructor for MSc students pursuing an engineering degree in data science.

```
Python, R  / Keras  / Deep Learning  / Machine Learning models (CART, Xgboost, GLM, SVC,
etc.)  / Web-Scrapping  / Docker /   / web-scrapping (selenium)  / MLP, CNN, RNN/LSTM
/ Numpy, Pandas, Sklearn  / introduction Kubernetes
```

2019 – 2018 February – September	**Junior Data Scientist**	Deloitte Luxembourg

Developed an end-to-end Python tool to preprocess, map and validate financial client data according to a newly implemented European regulation data model.

```
Python  / Data validation checks
```

2018 February – August	**MSc Research Internship in Clinical Modelling & Simulation**	UCL - University College London

6-month data science and medical research project in University College of London's clinical modelling & simulation unit in partnership with GSK -GlaxoSmithKline on begnin prostatic hyperplasia: developed an integrated longitudinal and time-to-event model that describes both the progression of clinical symptoms and onset of complications

```
Model-based Meta-Analysis  / R.RStudio  / Time-to-event modelling
```

EDUCATION

2016 – 2019	**Master's Degree ● Engineer's degree**	ESILV - Leonard de Vinci Graduate School of Engineering

The educational project of ESILV revolves around science and digital technology combined with 4 major specializations: IT-Computer Science, digital and mechanical modeling, quantitative finance and new energy. I'm part of the computer science specialization

2017	**Erasmus Exchange**	Politecnico di Milano

Bioinformatics and computational biology, ICT for health care, Soft Computing, Artificial Intelligence, Image analysis and computer vision, Design and implementation of mobile applications

2015 – 2016	**BSc degree in electronics**	ENSEIRB-MATMECA Graduate school of engineering, Bordeaux

2013 – 2015	**Preparatory classes for selective engineering schools**	Lycée Fabert, Metz

2-year Mathematics, physics and engineering science courses in preparation for the selective entrance examination to French engineering schools

LANGUAGES

French - native
English - fluent
Spanish - conversational

HOBBIES

Piano: professional diploma
Swimming