

Antonin Carette

Software and Machine Learning Engineer

Personal Details

Date Of Birth 10th of September, 1990

Languages French, English

Education

2017 **Assistant professeur**, *Assistant professor*, **University of Luxembourg**, Luxembourg.

I taught and evaluated bachelor students in Big Data and Artificial Intelligence courses

2014–2016 **Master en Informatique**, *Master Degree of Computer Science*, **University of Lille**, France.

Specialisation: Optimization Algorithms and Artificial Intelligence

2012–2014 **Licence Informatique**, *Bachelor Degree of Computer Science*, **University of Lille**, France.

Work Experience

2021 **Ingénieur R&D**, *R&D Engineer*, **DataThings**, Luxembourg.

I help to develop solutions for companies using artificial intelligence algorithms, from proof-of-concepts to production services. I Write production-level code to integrate and deploy our solutions, as binaries or micro-services, in client's code base or cloud provider(s).

Programming environment: Python.

2018–2021 **Ingénieur Logiciel**, *Software Engineer*, **TadaWeb**, Luxembourg.

I helped to develop tools and solutions for both the Core and Machine Learning teams, from proof-of-concepts to production services. I wrote production-level code to deploy on our own cloud stack, for clients all over the world, using SCRUM principles.

Programming environment: Python, Go, Rust, C++.

2016–2018 **Data Scientist et Développeur Logiciel**, *Data Scientist and Software Developer*, **DernierCri**, France.

I conducted Data Science activities for many companies, and developed web and mobile apps using Django, React, and React-Native.

Programming environment: Python, Rust, React, React-Native.

RESEARCH PROJECTS

2016-2017 **Assess and evaluating the energy consumption of Android apps code smells**, *LATECE team*, UQÀM, Montréal.

I built a strong protocol to measure the energy consumption of an Android device, in order to evaluate code smells impact. I contributed to the tool "FirefoxOS Powertool" and wrote, as first author, a research paper about the method I developed. The research paper has been submitted and accepted at **SANER 2017** after peer review.

Programming environment: Python, Rust, Java (for Android).

2015 **Prediction of bugs propagation for big Java projects**, *Sequel team*, INRIA Lille, France.

I built and experimented a method to study and predict the prediction of bugs in big Java projects. We submitted a paper (second author) to **RAISE**, which has been accepted in 2016 after revision.

Programming environment: Python.

Personal Skills

- As I worked a lot with both research teams and companies, I am able to **organize my time** and **communicate efficiently**.
- I am able to **work easily in team and lead a project**, through my involvement in open-source projects since I was a teenager.
- I have both **good computer handling and programming skills** which I acquired contributing to open-source projects, but also during my work experience.

IT Package

Engineering Softwares:

- I am fully proficient in using **Python** (≥ 3.7), **Go** and **Rust**, which I used during many personal and professional projects.
- I have knowledge of **Swift 5** / **SwiftUI** and the **Apple Metal 2** Graphics API for iOS and macOS platforms, which I use to build my own game engine.
- I have knowledge of **OCaml** (functional paradigm only), which I studied during my first years at the University.
- I have the habit to take care of my projects from proof-of-concepts to production, including **Docker** containers deployment in cloud environments and **Gitlab CI/CD**.
- I have knowledge of message broker tools, like **RabbitMQ**.

Open-Source contributions

- **Python**: scikit-learn documentation, statsmodel.
- **Rust**: cargo-generate, Redox-OS, ar-OS (my own operating system written in Rust), the Rust compiler documentation.
- **Other**: FirefoxOS Powertool, SOMCA's Paprika tool, SOMCA's Naga Viper, Calabash.

— Languages

French **Mothertongue**

English **Intermediate**

— Personal Interests

- Game Engines
- Operating Systems
- Fencing