

# NICOLAS DEJAX

R&D Engineer



🇫🇷 French, 33 years old

☎ +33 649 672 545

🌐 [linkedin.com/in/nicolas-dejax-277b275b](https://www.linkedin.com/in/nicolas-dejax-277b275b)

📍 Toulouse, France

✉ nicolas.dejax@live.fr

🐙 [github.com/Niicoo](https://github.com/Niicoo)

🌐 [algolisto.org](https://algolisto.org)

## ABOUT ME

I am currently seeking freelance opportunities with a focus on ethical sectors.

While Python development constitutes my primary skill set, my main strength lies in my ability to adapt quickly to any new environment, fueled by my passion for learning new technologies and methods. This enables me to offer my services across a wide range of fields.

Therefore, feel free to contact me if you think you have a project that fits my interests. I would be happy to discuss it with you

## LANGUAGES

French	Native	●●●●●
English	Proficient	●●●●●
Spanish	Proficient	●●●●●

## SKILLS

python	bash	c/c++	cmake	matlab
linux	docker	gitlab CI/CD	ansible	
git	Qt / PyQt	opencv	flask	django
javascript	typescript	angular 7		
HTML / CSS	SQL	celery		

## EDUCATION

Master - Signal Processing	📅 2014
Signal Imaging and Applications Audio/Video processing	
Master - Electronic	📅 2013
Electronic of embedded systems and telecommunication	

## INTEREST

- 🎵 Music Theory, Piano, Guitar
- 🏃 Running, Badminton, Tennis, Hiking
- 🔧 DIY, Renovation
- 📖 Reading
- 🧠 Popularization of science: Social psychology, Fundamental of physics, Mathematics, etc...

## EMPLOYMENT

### Python Developer

[Sancare](#)

📅 06/2023 - today

- Enhancing system architecture with microservices using Flask API, SQL Models and RabbitMQ messaging
- Applying DevOps practices with GitLab CI/CD, Docker, Ansible, and bash scripting
- Design & Integration of new features for ongoing product innovation
- Providing support by debugging issues and implementing hot fixes

### Altimeter Data Engineer

[CLS \(Scalian subcontractor\)](#)

📅 02/2021 - 06/2022

- Extraction of the instrumental altimeter parameters (Filter and PTR)
- Design & Implementation of a toolchain for the generation of netcdf products
- Study of the performance of conventional altimeter in hydrology (estimation of river height)

### Image Processing Engineer

[Continental \(CELAD subcontractor\)](#)

📅 11/2019 - 11/2020

- Study of the performance driver monitoring system: face detector, gaze and eyes measurements, drowsiness detection.
- Implementation of new algorithms in an existing software in C++ / Qt
- State of the art / Implementation / Comparison of various deep learning models (body pose models, head pose models, pedestrian detection models)

### Full-Stack Developer, R&D Audio processing

[Entrepreneur](#)

📅 10/2017 - 10/2019

Creation of an algorithm to extract the score from a recorded sound and integration in a web application.

- Creation of a python library and C++ library
- Implementation & Deployment:
  - Desktop app (Python + PyQt)
  - Web app (backend: Django REST API, frontend: Angular 7)
- Server configuration from scratch using Apache
- Score format: MusicXML and MIDI

### Altimeter Data Engineer

[CLS \(Scalian subcontractor\)](#)

📅 02/2016 - 09/2017

- Implementation of an iceberg detection method
- Comparison of altimetry measurements on rivers using conventional altimeters and SAR (Delay/Doppler) altimeters.
- Recovering wind speed (Sigma0) using GNSS Reflectometry
- Validation of an algorithm to calculate the slope along track on ice measurements and provide a correction accordingly.

(All works detailed above include validation studies followed by the writing of report and/or presentation in English/French)

### R&D / Radar Systems Engineer

[Météo France](#)

📅 10/2014 - 12/2015

- Programming a weather radar data simulator
- Optimization of radar frequencies (Band S / C / X)
- Optimization of Doppler velocity unfolding algorithms
- Implementation of Triple-PRT Doppler filtering methods (ground filtering)
- Creating a GUI (C++/Qt) application bringing together optimization tools
- Participation at the American Meteorological Society (AMS) radar conference in Norman, OK, USA ([poster link](#))