

BAPTISTE DUBILLAUD

Software Engineer

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After more than a year and a half at TotalEnergies Denmark working on multiple user-oriented applications, and with three years of experience as a Software Engineer, I am seeking a new opportunity in Full-Stack or Software Engineering, starting in early 2025.

Experience

TotalEnergies, Tech Lead & Software Engineer 2023 – 2025
Esbjerg, Denmark

- Create, refine and maintain Proof of Concepts for the affiliate's Digital Laboratory.
- Structure the development environment to support growth by managing different Github repositories, Azure Landing Zone, Windows servers, and implementing SSL and SSO...
- Develop applications utilizing Generative AI, complex user interactions (tchat, animations...), large data fetching and processing, SAP data integration, health and usage monitoring, architecture, and Azure.
- Achieved Top 10 finalist status twice in TotalEnergies' *E&P Best Innovators* awards.
- React (Next.js, Axios, Framer-Motion, MSAL), Python (FastAPI, Pandas, Numpy, Dash), Powershell, PostgreSQL, Azure (AD, Entra ID, Vector Database, Azure functions).

Airbus Defense & Space, Software Engineer October 2021 – February 2023
Toulouse, France

- On behalf of **Viveris**, served as a member of an Airbus team developing a software for managing ground/satellite communications (encryption, decryption, routing), correcting anomalies, and implementing new features.
- Developed a simulator for the control center and satellite to support integration and performance tests of the application.
- Created a monitoring application to centralize logs and track the status of all different instances of the software deployed on multiple servers (both active and redundant instances).
- Java (Netty, Swing), C++ (Qt), Python (Squish), Redmine, Squash, Jenkins, Gitlab, Sonarqube.

TotalEnergies, Software Engineer September 2020 – September 2021
Pau, France

- Member of the AVO geophysicists and geoscientists team, working on a new set of computation and visualization tools for the SISMAGE-CIG, the geophysics software of TotalEnergies.
Java (Swing, AWT), C, C++, Fortran, Git, Gerrit, Sonar, Jira, Jenkins.
- Project manager for the development of a web application of geophysics tools. Managed 3 interns.
Angular, ExpressJS, NodeJS, BitBucket.

TotalEnergies, Software Developer Intern May 2021 – August 2021
Pau, France

- Design and development of a well water injection simulation software.
- Java (Java FX, Control FX), Bash, Python, Fortran, BitBucket.

TotalEnergies, Software Developer Intern May 2020 – Aug. 2020
Pau, France

- Development of visualization tools from scratch on SISMAGE-CIG, the geophysics platform of TotalEnergies on behalf of the geophysicists/geoscientists AVO team.
- Java (Swing), Git, Gerrit.

Conforama, Salesman, student job

Lescar, France

June 2018 – August 2019

- Seller of household appliances (TV, computers, washing machine...). 15 hours a week.

Education

MS CY-Tech (EISTI), Computer Science

2016 – 2021

- **Coursework:** Software Architecture, Algorithms, Machine Learning, Databases, Web development...
- Specialization in Big Data frameworks through Big Data Analytics classes.
- Spark, Pandas, Seaborn, D3.js.

- University of La Coroña, HPC Course

2020 – 2021

- **Coursework:** HPC Architecture, GPU and CPU architecture, Compilers, Multi-threading algorithms, Image processing.
- One year course in High Performance Computing (HPC).
- Final project: Development and optimization of an algorithm to filter data cubes from seismic imaging (Pangea II HPC at TotalEnergies).
- Multi-threading (OpenMP, MPI, Cuda, OpenCL), Image processing (OpenCV), Fortran, C, C++.

Technologies

Software:

Java: AWT/SWING/JavaFX, Netty, Spark,

Python: FastAPI, Pandas,

C: OpenMP, MPI,

C++: Qt, some basis in CUDA

Web:

Javascript: React (Next.js, Framer-motion, MSAL), Recharts, D3.js,

Python : Dash, Streamlit

VCS: Git, Gerrit, Github, Gitlab, Sonarqube, Jenkins, Redmine, Jira

Deployment:

Windows Server: IIS and windows servers apps,

Azure: Azure AD, Landing Zone management, Entra ID, Vector Database, Azure functions, Github actions

Tools: VS Code, DataGrip, IntelliJ IDEA

References

References available **upon request**.