

BARDE ALEXANDRE

Software engineer specialized in cloud-native software development and the space industry

alexandre.brde@gmail.com ♦ <https://alexandre.brde.fr> ♦ +1 (438) 338 3007

Montréal, H3H 0B2

EDUCATION

Master's degree in computer science

2019 - 2021

Double degree :

- IT expert and information system
- Software development expert

Creation of Android applications in Java, Javascript and Unity, for management applications or virtual reality games. Learning of machine learning and deep learning for processing massive data and creating a chatbot to help diagnose a covid case. Creation of pipelines and scripts on GitlabCI for automated development, integration and deployment. YNOV Campus, Toulouse

Bachelor degree in software development and quality

2018 - 2019

Advanced Java skills and various web languages, such as PHP, NodeJS and client-server architectures. Mastery of the main agile software development methods, such as Scrum and eXtreme Programming, Test Driven Development.

Toulouse

Paul Sabatier,

Associate degree in computer science

2016 - 2018

Learning of several languages, like C, Java, PHP, Python, ADA. Design and administration of databases with Oracle or MySQL.

Advanced use of Linux on a daily basis, writing different scripts as well as learning about the network and the administration and maintenance of Linux servers. Paul Sabatier, Toulouse

Technological baccalaureate STISD

2015 - 2016

Sciences and Technologies of Industry and Sustainable Development - Information System and Digital Specialty Study of digital processing, learning of electronics and development of embedded software.

Design of a project to convert a street lamp into a connected street lamp, in order to be able to control it remotely via a web application and to automate it. Lycée Georges Cabanis, Brive La Gaillarde

PROFESSIONAL EXPERIENCE

Software / data engineer and Scrum Master on Galileo

November 2021 - Now

Thales Alenia Space, Toulouse

- Leading and preparing the various ceremonies in a SAFe project.
- Development of JAVA microservices with SpringBoot to collect data streams (MDDN, OSPF, SIS, PRS, etc.) from the European satellite positioning system in real time, decode them, process them and store them in databases. To monitor the health of the constellation.
- Deploy using cloud technologies like Kubernetes, Helm and Docker.
- Use of RabbitMQ and its clients in different languages to manage data flow. Redis for caching and InfluxDB for storage.
- **Technologies used** : Java, Python, Golang, Kubernetes, Helm, Docker, GitlabCI, Minio, RabbitMQ, Redis, InfluxDB.

Full stack developer - Apprenticeship

October 2019 - October 2021

Thales Alenia Space, Toulouse

- Development of the planning management tool for all constellation and ground segment activities in the Galileo Second Generation project. Such as satellite maintenance or contact from the ground to a satellite to send navigation data.
- Second project: Architecture, development and cloud deployment of a monitoring and predictive maintenance product for satellite constellation monitoring (HUMS: Health and Usage Monitoring System).
- **Technologies used** : Golang, NodeJS, Python, C++, MongoDB, PostgreSQL, Kafka, Docker, Helm, Kubernetes, Azure, Angular, Swagger, GitlabCI.

Full stack developer - Internship

April 2019 - August 2019

Thales Alenia Space, France

- Development of a Web tool to supervise and configure satellite telecommunications network equipment installed in a traffic docking station.
- **Technologies used** : Angular, Grafana, API Rest and WebSocket.

Full stack developer - Internship

April 2018 - June 2018

GNH Conseil, Toulouse

- Architecture, development and deployment of a Web tool to promote sustainable development actions.
- **Technologies used** : PHP, MySQL, Bootstrap, Javascript, NGINX.

TECHNICAL SKILLS

Languages	C, C++, C#, Golang, Java, Python, Bash, PHP, JavaScript, LaTeX
Databases - NoSQL	MongoDB, Cassandra, Redis, Firebase
Databases - SQL	MariaDB, MySQL, SQLite, Oracle, PostgreSQL, InfluxDB
Tests	TDD, Junit, PHPUnit, Robot Framework, JestJS, Cypress, Jasmine, Karma
Cloud	Azure, Kubernetes, Helm, Docker, Firebase
CI/CD	GitlabCI, Jenkins, TravisCI

PROJECTS

TeamMatesFinder - YNOV Campus

Platform that allows you to search for video game teammates based on specific criteria such as their level, their role or if they are sociable.

Technologies used : Docker, PostgreSQL, Angular, ExpressJS, NodeJS.

Online store - AtelierCausseNature

Development of an online store of a craftsman who works with wood to produce jewelry or decorative objects.

Technologies used : NGINX, Symfony, PHP, MySQL, Bootstrap.

DevOPS pipeline - YNOV Campus

Automated deployment via the GitLab CI. Run tests, build, create a Docker image for deployment, error handling with Sentry and notification system via Slack.

Technologies used : GitLab CI, Docker, Shell, API Slack.

Android Development - YNOV Campus

Development of an Android application to manage a child's schedule, with tasks, alarm clocks and reminders. It allows to leave autonomy to the child so that it is responsible. This application is written in Java via Android Studio.

Technologies used : Java - Android Studio, Firebase.

Technical referent database - Aldostra

Advice and management of the databases of the Aldostra project, which is a Minecraft server on the Harry Potter universe, several hundreds of players connect to it in order to embody a character. I also set up the migration of our databases from Redis to MySQL by creating Java scripts to transfer the thousands of data.

Technologies used : Java, Redis, MySQL.

Co-manager of the 1st French-speaking forum Skript - Skript-MC

Skript-MC is the first French-speaking Skript forum, which is a Minecraft plugin allowing to simplify the development on the game. Our community has nearly 25,000 members, I manage the team and the technical aspects of the forum.

Technologies used : PHP, NGINX, XenForo, communication on social networks, team management.

DreamTech - Bachelor degree in software development and quality

Development of a collaborative and playful platform to connect students wishing to revise. It allows to find partners to revise or an experienced student in a subject who seeks to help others. It integrates a gamification system to motivate users to use the site and its features, such as a system of experience, rewards or ranking. Implemented a continuous integration system with TravisCI and PHPUnit tests to guarantee a good maintainability of the project.

Technologies used : Symfony, TravisCI, Bootstrap, JavaScript, MySQL, PHPUnit, Scrum.