

# SÉBASTIEN NOBOUR

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# FREELANCE FULL-STACK DEVELOPER NODEJS NEXTJS AWS

## **PROFILE**

I help companies to create custom applications. I have been working for 3 years on User Interface development, backend and database API design and development, deployment on web hosting companies.

Assets: fluent English and French, action-driven, data-driven and client-first mindset;

# **EXPERIENCE**

#### FULL-STACK DEVELOPER

#### Freelance (since 2020)

- Product feedback: SPA development in ReactJS and GraphQL API in NestJS
- ISCO (Netherlands): update of a SPA in EmberJS and REST API in Symfony for a CRM, development of tests

#### PHP DEVELOPER

# Valeo (2019 - 2020)

- Maintenance of a license monitoring application;
- Technology watch, development of Proof Of Concepts, technical proposals;

#### JUNIOR WEB DEVELOPER

## Freelance (2019)

• Refactory Devops (Netherlands): Maintenance and development of websites and web applications

## **EDUCATION**

- Bachelor (EQF\* Level 6) Application Developer at My Digital School (2019 2020)
- Professional Certifications Web Integrator & Developer at Web Force 3 (Sept. 2018 Janv. 2019)
- Technician Diploma (EQF Level 5) Home Automation at IFA Delorozoy (2012- 2014)

# HOBBIES & INTERESTS

- Self improvement, leadership, communication, fast reading techniques;
- Entrepreneurship, crypto-currencies, e-commerce via Amazon FBA;
- Digital nomad lifestyle;
- Sports: artistic gymnastics, fitness, soccer, basketball, swimming, cycling;
- Since 2018: volunteer at an English speaking nonprofit;
- Full-time volunteer from 2015 to 2017: one-on-one teacher, public speaker;

# **SKILLS**

- <u>Architecture and concepts</u>: MVC, FLUX, Data Down Actions UP (DDAU), POO, SOLID patterns, REST and JSON APIs and GraphQL, SPA (Server Side Rendering and Client Side Rendering), JAMStack for static website, websocket, web worker, micro-services, serverless, containerization, virtualization, Infrastructure As Code
- Systems: Linux (Ubuntu, Debian, RaspBian), Mac OS, Windows
- <u>Languages</u>: JavaScript, TypeScript, PHP7, SQL, HTML5, CSS3, XML, SASS, PostCSS
- <u>CSS Frameworks</u>: Boostrap [4,5], TailwindCSS 2, Bulma CSS, Material UI, AntDesign
- <u>JS Frontend frameworks & librairies</u>: ReactJS(Redux, React Apollo, React Router), EmberJS, JQuery, Webpack
- JS Backend frameworks: NodeJS, ExpressJS, NestJS(Apollo-graphQL), SocketIO
- JS software frameworks: ElectronJS
- PHP frameworks: Symfony (4,5), Twig, API-Platform
- <u>Databases & tools</u>: PostgreSQL, MySQL, OracleSQL, MongoDB, DoctrineORM, TypeORM, Mikro-ORM, Mongoose
- <u>Testing and quality tools</u>: TDD, Eslint, Prettier, Jest, Mocha, Chai HTTP, Qunit, Coverall, PHPUnit, Cypress, BrowserStack
- <u>Versionning</u>: Git, Github, Gitlab, Bitbucket
- CI/CD: Gitlab.ci, Github Actions, Travis CI, AWS Code Pipeline
- Devops: GitlabCI, Github Actions, Docker, Serverless Framework
- <u>Cloud</u>: Amazon Web Services (Lambda, ECS, ECR, EC2, S3, EFS, Amplify, Route53, LightSail, IAM, SNS, SES, SQS, API Gateway, DymanoDB, CloudWatch, Secret Manager, IAM, S3, DynamoDB, BitBucket, CloudFormation, API Gateway, EventBridge, Code Pipeline)
- Project management tools: Github Projects, Gitlab, CollabNet, Jira, Confluence
- Visual Design tools: Figma, Adobe XD
- CMS: Shopify, Wordpress/Bedrock, WooCommerce

## SIDE PROJECTS

- nobour-eshop.com: e-commerce application in MERN Stack, AWS (EC2, Amplify), Docker, Github Actions
- CRM application (crm.devedanos.com): PHP, API-Platform, React.js
- Air B n'B replica application (sym-5-bnb.devedanos.com): PHP, Symfony
- todo-list and school manager applications: NestJS, ReactJS, MongoDB, PostgreSQL, GrapqhQL and REST APIs, AWS, TypeScript
- Auctions application: Node.js, React.js, Serverless Framework AWS, AWS Lambda

PRODUCT FEEDBACK MARCH 2021

#### FREELANCE FULL-STACK DEVELOPER NODEJS REACTJS NESTJS TYPESCRIPT

#### Introduction:

Product Feedback is a startup created in 2019 in Marseilles (13, France) that aims to revolutionise the management of customer feedback on a product. It is inspired by the notion.so application.

Product Feedback started from the observation that gathering and synthesising user feedback on a product was difficult and time-consuming: information not shared with the whole team, missing sheets or supporting documents... To simplify this management, Product Feedback is developing an online collaborative interface, gathering in one place customer responses to forms, product team members' reports on these responses, and final decisions based on the reports. It plans to add additional services such as excel spreadsheet integration and more...

In March, its team was composed of a CEO, a CMO based in Marseilles and a CTO working from the Czech Republic. I was directly working with the CTO.

#### Context:

Product Feedback proposed me to work for them as a freelance instead of passing technical tests, before hiring me. It was a full-remote position.

On the 6th day of trial, I had my first interview with the CEO. During this latter, I learned that Product Feedback team was actually looking for a senior developer to substitute its CTO. Hence, I worked 6 days for Product Feedback.

## Tasks:

- Participation in the implementation of the application architecture, design of database and the backend entities
- Development of a GraphQL API as well as its queries and mutations
- Development of a User Interface as a Single Page Application, with its forms and reactive components
- Development of a GrapQL API, with its resolvers, services, repositories

#### <u>Technologies</u>

NodeJS, TypeScript, NestJS, ReactJS, React-Apollo, PostgreSQL, AWS (Amplify), git, Github, Docker, styled-components, AntDesign, Mikro-ORM, Material UI, Responsive Web Design, styled-components

## ISCO

## FREELANCE FULL-STACK DEVELOPER SYMFONY EMBERJS

#### Introduction:

ISCO is a Dutch company that manufactures safety shoes. It has a CRM developed by Refactory Devops, a Dutch one-man company.

# Context:

Refactory Devops called on my services to update ISCO's CRM.

I worked on the update of its backend and frontend. Refactory Devops takes care of the deployments in staging and production environments, and the code review. The follow-up of the tickets is done on Gitlab.

#### Tasks:

- Update of the REST API, from Symfony 3 to 4 and adaptation of its services containers configuration
- Update of the Single Page Application from EmberJS 2 to 3, with its Octane syntax in templates, replacement of the ember classes by native JS classes in the components, controllers, helpers, models
- Development of descriptive unit and integration tests with PHPUnit for the REST API, and Qunit for the SPA

# Technologies:

PHP 7, Javascript, EmberJS (2, 3), Qunit (qunit-dom), PHPUnit, CI/CD, Gitlab CI, Docker, NodeJS, YAML, Symfony (3, 4);

#### PHP DEVELOPER

#### Introduction:

Valeo is a large international company, founded in France, and one of the leaders in the automotive equipment market. It is composed of 5 activities: thermal systems, visibility systems, propulsion systems, comfort systems and driving aids, and aftermarket activities. Each activity has a Methods and Tools team, which in turn has an Engineering Information System (EIS) team. The EIS team manages, among other things, the software licenses, thus allowing the engineers to have the necessary digital tools for their work (design, 3D modeling, virtual test benches).

#### Context:

During my apprenticeship, I joined the EIS team of the thermal systems group. Directly under the supervision of my manager and as the only developer on the project, I was in charge of the maintenance of Licence Server Status, a custom PHP application allowing to monitor Valeo's servers all over the world in order to check the status of software licences. This application stores information in a database, and then displays it on a dashboard, providing alerts and sending emails when a license is about to expire. This project has gone through several versions over 15 years, and has often been rewritten from scratch by successive apprentices. The goal of this project is to help EIS in the prevention of renewal and purchase of software licenses to better manage the budgets of Valeo.

#### Tasks:

- Suggestion and implementation of development practices, architecture, and technologies in order to preserve the project and not have to rewrite it anymore (using versioning, deploying programs via git instead of ftp, using a ticket management system, switching the project to OOP and MVC, adding automated tests and CI/CD...)
- Development and maintenance of the UI
- Development of charts in ChartJS
- Definition, development and maintenance of PHP scripts querying the servers and their software license daemons
- Designing of the architecture and implementation of the database
- Development of SQL queries
- Technology watching on Symfony 5 by developing an Air B n'B replica accessible on sym-5-bnb.devedanos.com
- Deployment in pre-production and production environments
- Development of Proof of Concepts for the custom PHP application License Server Status on Symfony 5 (not completed due to the COVID-19 pandemic)

## Technologies:

PHP (5, 7), Symfony (4, 5), BeyondCompare, Git, CollabNet, Javascript, AJAX, HTML, CSS, Bootstrap, Apache, CentOS, Windows Server 2008 et 2012, Windows 10, Scheduled task, WinBash, YAML, Bootstrap, Bootswatch, Doctrine ORM, SQL, OracleSQL, MySQL, OVH

## FREELANCE JUNIOR WEB DEVELOPER

#### Introduction:

Refactory Devops is a Dutch one-man Digital Services Company. Its developer has more than 15 years of experience. It develops its own devops solutions, builds websites and applications for his clients.

## Context:

In 2019, I was planning to move to the Netherlands. For a few months I worked alongside the developer of Refactory Devops on projects for his clients, as well as his own startup project. I was working both from France and Nijmegen in Netherlands.

## Tasks:

- Implementation of the language internationalization of a Single Page Application
- Development of the authentication system via JWT and Oauth2
- Web integration for showcase sites via CMS
- Maintenance and correction of bugs on Single Page Applications
- Migration of websites from a web hosting service to another

## Technologies:

Neos Framework, Neos CMS, EmberJS 2, I18n, Javascript, HTML5, CSS3, PHP 7, YAML, cPanel;

DEVEDANOS.COM JULY 2021

Frontend development with EmberJS

## Introduction:

This project corresponds to the portfolio website of my micro enterprise for its activity related to web development. This website is available on www.devedanos.com.

It is a Single Page Application based on EmberJS, using the Server Side Rendering technique thanks to the ember-fastboot extension. But it is also able to use the static site generation through JAMStack thanks to the empress extension. I use Server Side Rendering to bring a better UX and a good SEO to my site. It is deployed on Netlify. The purpose of this site is to make visible my web development activity registered web under the trademark "Devedanos.

# Tasks:

- Organization of my tasks on NotionSO
- Preparation of the UI design: choice of colors, logo, drawing of components
- Registration of the trademark at the INPI
- Development of UI components and internationalization
- Development of features through TDD
- Deployment in production
- SEO (use of keywords, HTML semantic, deferred scripts)

#### Technologies:

EmberJS (fastboot, empress, intl), Netlify, Handlebars, Javascript, NodeJS, Tailwind CSS, PostCSS (syntax SASS extension), NotionsSO, git, github, Responsive Web Design, eslint, Plausible, Google (Search Console and Trends), Netlify

NOBOUR-ESHOP.COM JANUARY 2021 - JULY 2021

Full-stack development MERN Stack and Docker

#### Introduction:

This is my most successful personal project, deployed on nobour-eshop.com, achieved in nearly 400 hours of work.

In order to improve my skills on the MERN stack, I followed the "Mern eCommerce from scratch" training on Udemy. Having felt that this training did not go as far as I wanted, nor fast enough, nor that the application produced was usable in real conditions, I added features and modified the structure of the project by myself.

This application allows a merchant to put several products on sale and to be paid via Paypal. An emailing system sends email to the shop owner when product stock is low, when an order has to be prepared. Emails are also sent to clients to confirm account creation, password modification, confirmation of purchase, his order dispatch. A bill is automatically generated at purchase and is downloadable both by the shop-owner and the buyer. Only the shipping is not managed by the application.

#### l asks:

On the backend side, this training was a review. On the other hand, on the frontend, this training allowed me to:

- take control of Redux to manage the global state (store) of the SPA in ReactJS
- set up actions and reducers in order to execute HTTP CRUDS requests to the REST API, retrieve the basket of products from the local storage
- set up an access restriction to views reserved to the administrator and redirections using the hooks of React Router

On my own, here is what I added to the project, or even learned on occasion:

- Development of PDF invoice generation
- Development product inventory management, order cancellation
- Development of emails to customers to confirm account creation, reset their password, notify them of purchase confirmation and shipping of their orders
- · Sending emails to the merchant to notify them of new orders, and that product stock is low
- Creation of Docker images, commissioning and deployment of Docker containers in AWS ECR, EC2
- Set up a multi-stage CI/CD pipeline and production and staging environments via Github actions for the backend and a CI/CD pipeline via AWS Amplify for the frontend
- Securing the ExpressJS REST API with Express CORS middleware, and helmet
- Creation of an infrastructure for the application ecosystem on AWS
- Creations of databases for all environments on MongoDB Atlas services and Docker containers

## Technologies:

MongoDB (Compass, Atlas), ExpressJS, ReactJS, NodeJS, Docker (docker-compose), Github Actions, AWS (Amplify, ECS, EC2, ECR, Route53, VPC, IAM, EFS), AWS SDK, helmet, ssl, multer, morgan, mongoose, axios, Responsive Web Design, Redux, POSTMAN, Bootstrap (bootswatch themes);

AUCTION WEBSITE DECEMBER 2020

Backend development Cloud Serverless AWS Lambda NodeJS

## Introduction:

In order to improve my skills on AWS and to make sure I understood how to use it after taking the course "AWS - The 12 fundamental services of the Cloud n°1", I took the training "Serverless Framework bootcamp: NodeJS, AWS & Microservices", both on Udemy. The latter allowed me to develop an auction application, provisioning resources on AWS with Serverless Framework. I developed 3 microservices: authentication, auction and notification services and connected them to a Single Page Application in React.js.

The source code is distributed on 3 github repositories:

- https://github.com/daproclaima/aws-sls-notification-service
- https://github.com/daproclaima/aws-sls-auth-service
- https://github.com/daproclaima/aws-sls-auction-service

#### Tasks:

- Development of HTTP endpoints performing CRUD via API Gateway, calling in turn Lambda functions
- Use DynamoDB as a DBMS to perform CRUD on data and create document schemas for data validation and error handling
- Implementation of message queues for communication between microservices via AWS Simple Queue Service
- Set up scheduled events via AWS EventBridge to close an auction after one hour
- Management of the entire microservices architecture via AWS CloudFormation indirectly exploited by the serverless.yaml files of the Serverless Framework (interconnection of services by retrieving their arn, url, environment...).
- Setting up object storage via AWS S3
- Implementation of email notifications via AWS SES to inform if the auction has been won by someone or has not found a buyer
- Implementation of an authentication and authorization middleware in JWT via API Gateway Lambda Authorizer, optimizing costs if the same JWT was used less than 300 seconds ago on the same API Gateway endpoint

## Technologies:

NodeJS, ReactJS, JWT, HTTP, Serverless Framework, YAML, AWS (Lambda functions, IAM, S3, DynamoDB, BitBucket, CloudFormation, API Gateway, EventBridge, Simple Notification Service, Simple Queue Service, Identity and Access Management), git, Github

Backend development NodeJS NestJS TypeScript

## Introduction:

In order to learn more about NestJS and to make sure that my switch from PHP and Symfony to NodeJS was a good choice, I took a short online training on Udemy: "NestJS Zero to Hero - Modern TypeScript Back-end development".

It included two projects to create a todo list and a school class management system. I developed a REST API using PostgreSQL for the todo-list and a GraphQL API, its mutations and queries using MongoDB as DBMS for the school class management system

#### Tasks:

- · Development of unit tests with Jest
- Design and development of REST and GraphQL APIs performing CRUD operations
- Authentication and Authorization for back-end applications,
- Development of scripts with TypeORM to interact with MongoDB and PostgreSQL databases
- Password hashing and storing sensitive information
- Deployment of the APIs at a production-ready state to Amazon Web Services
- Implementation of efficient logging in the backend applications
- Implementation of data validation and using Pipes
- · Modelling entities for the persistence layer
- Development of Data Transfer Objects (DTO)

## Technologies:

NodeJS, TypeScript, NestJS, ReactJS, Apollo-server, PostgreSQL, git, Github, TypeORM, HTTP, JWT, Jest, SSL, MongoDB, Postman, PgAdmin, Jest;

CRM.DEVEDANOS.COM OCTOBER 2020

Full-stack development ReactJS API-Platform

## Introduction:

In order to know how to develop with React and create a REST API with PHP, I followed the "Modern development with ApiPlatform (Symfony) and React" training by Lior Chamla over one month. Through this course, I developed a Customer Relationship Management application, composed of a Single Page Application in ReactJS and a REST API based on API-Platform, respecting the JSON API specification.

It is deployed on Heroku and accessible on crm.devedanos.com.

#### Tasks:

- Development of the SPA and forms
- Development and configuration of the JSON API
- Implementation of the database architecture
- Development of scripts and queries for filtering, scheduling, pagination
- Management of data serialization/deserialization
- Development of security: data validation, authentication by JWT
- Manual management of client-side data caching
- Deployment of the whole application on Heroku

#### Technologies:

PHP 7, Symfony 5, API-Platform, Axios, React (React-router, react toastify, react bootstrap...), HTTP, Bootstrap (bootswatch theme), HTML5, CSS3, DoctrineORM, SQL, MySQL, Heroku;

WORKER GENIUS DECEMBER 2019 - JULY 2020

Full-stack development Javascript NodeJS

## Introduction:

As part of my training for the title of Application Designer Developer at My Digital School Paris, I was in a team of 5 persons composed of a web designer, 2 web marketers, and another web developer. Our project allowed web designers and marketers of our team to validate their school year.

I was appointed project manager by the team and also had the role of lead developer. This allowed me to develop skills in marketing, web design, project management.

The objective of our "Worker Genius" project was to facilitate the recognition of the skills of digital professionals and their job search. To do so, we started the development of an application being at the same time a technical test platform, a job board and a real time exchange between recruiters and digital professionals. Concerning the development, I mainly focused on the backend, leaving the majority of the frontend development to the other developer of the team.

The application was composed of a several HTML pages rendered by an ExpressJS server and a different REST API.

#### Lasks

- Definition of technology choices, project structure
- Definition and development of the database model structure
- Development of a REST API connected to mongoDB, also validating JSON payloads
- Development of authentication with JWT
- Development of a websocket server for a chat service
- Development of a part of the UI
- Deployment on PlanetHoster

#### Technologies:

AGILE, Trello, NodeJS, ExpressJS (express-validation), HTML5, CSS3, MongoDB, HTTP, HandlebarsJS, Mongoose, SocketIO, Bootstrap 4, axios, Adobe XD