JULIEN RICHARD

SOFTWARE ENGINEER

I am a software engineer who coding in different languages like Python, JavaScript or Go.

My curiosity pushed me to try multiple domains of development: front-end, back-end, ops and embedded.

Driven by a relentless pursuit of innovation, I thrive in tech-driven environments where I can leverage my diverse skills set to tackle complex challenges.

Passionate about creating high-performance and intuitive applications, my goal is to actively contribute to the success of every projects I work on.

For a glimpse of my work, feel free to check out my **Portfolio** or my **GitHub**.

CONTACT :

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- **GitHub : https://github.com/jurichar**
- **Portfolio : https://jurichar.vercel.app/**

SKILLS :

Back-end :
- Python (+ Django)
- Go
- NodeJS

Front-end :
- TS / JS
- React/NextJS
- Tailwind, SASS

Others :
C++, Java, Docker, K8s, Jenkins, Minio.

EDUCATION:

42 SCHOOL PARIS

MSc Digital Architect (Mobile & Web Development) *(2020 - 2023)*

Programming projects in multiple languages with a "peer-to-peer learning" pedagogy and gamification of the curriculum.

UNIVERSITY OF PARIS

Diploma in computer sciences *(2017 - 2019)*

- Create, implement and use databases.
- Algorithms and programming.
- Use of logic and arithmetic tools.
- Understanding computers, operating systems and networks.

EXPERIENCE :

SOFTWARE ENGINEER - FRONTEND

BETC Fullsix (group Havas), Paris, 2024

- Contributed to cutting-edge frontend projects using WebGL, specializing in creating immersive web experiences.
- Collaborated with renowned clients, delivering dynamic web solutions using Next.js, Tailwind CSS, and native JS.
- Adding WebGL to the websites allows using WebGL on the sites allows customers to differentiate themselves from other platforms.

SOFTWARE ENGINEER - DEVOPS / BACKEND

ExaactRobotics, Paris, 2023

- Optimized infrastructure for machine learning applications, enhancing model performance by transitioning to cloud-based solutions like ZenML or Minio and also the dockerization of their environment.
- Developed internal tools in C++ for rapid environment setups using Kubernetes, Ansible, and PostgreSQL.
- The optimization of customer infrastructure and data treatment in python by our teams has enabled us to increase data processing speed by a factor of 30.

SOFTWARE ENGINEER - EMBEDDED SYSTEMS

AGCO, Paris, 2022

- Integrated software for a connected vehicle using a proprietary C++/Qt framework.
- Contributed to the development of an Infrastructure as Code (IaC) framework in C++ and Python.

HOBBIES :

Coding, retro-gaming, climbing (red), gardening

PROJECTS :

BACK-END DEVELOPMENT OF A RSS FEED AGGREGATOR

In this project, I undertook the development of a comprehensive RSS feed aggregator, fostering an **internal network for curated news updates**. Crafting a robust **web server** and **RESTful API** from **scratch**, utilizing **Go's libraries**, I embraced the challenge of building a **complex application**. From user management to data aggregation, my contributions ensured a seamless and scalable solution.

FULLSTACK DEVELOPMENT OF A TORRENT STREAMING WEB APP

Tasked with replicating the functionalities of **popular streaming platforms**, our team crafted a web application capable of **streaming** and **downloading torrent** files efficiently. Employing **Django**, **React**, and **PostgreSQL**, supplemented by **Node.js microservices**, we adhered to **agile** method, ensuring seamless integration of front and backend components while addressing the nuances of **high-performance streaming**.

CREATIVE FRONT-END DEVELOPMENT FOR SODEXO

Working alongside a team of developers and designers, we aimed to deliver a modern, dynamic web experience using **Next.js**, **Tailwind CSS**, and **Framer Motion**. Exploring intricate **animations** and **bespoke solutions** to meet specific requirements, I enjoyed the challenge of integrating backend functionality into **Drupal** while creating **advanced user interactions**.

CREATIVE FRONT-END DEVELOPMENT FOR CHOPARD

Teaming up with front-end development experts and UI/UX designers, I contributed to crafting an immersive web experience using **native JS** and **WebGL** technologies. Creating a visually captivating **2D journey** through various interactive canvases, the project delved into the realm of **graphic web design**, fostering a unique online exploration for users.

FULLSTACK DEVELOPMENT OF A SOCIAL NETWORK

Pioneering a modern stack featuring **Next.js**, this project facilitated my exploration of **full-stack** development, incorporating **middleware** and **server-side rendering**. Leveraging **Vercel** and **NeonDB** for cloud infrastructure, I embraced a pivotal role in defining the project's technical framework, navigating the latest cloud technologies to deliver a robust social networking platform.

INFRASTRUCTURE OPTIMIZATION AND DEPLOYMENT FOR EXAACTROBOTICS

In this project, I was in the **DevOps team** to optimizing infrastructure for **machine learning** applications. Leveraging tools such as **Docker**, **Kubernetes**, and **Azure** for the ML pipelines, alongside **ZenML**, **Minio**, and **Pachyderm**, we streamlined data processing and model deployment. Transitioning the infrastructure to the cloud significantly enhanced model performance. My responsibilities included code optimization in **Python**, **deployment strategies**, and ensuring requests optimizations in **SQL**. Collaborating in **agile** method alongside a project manager and another consultant, we utilized **Jira** for task management and maintained version control with **Bitbucket**.

R&D IAC INTERNAL TOOL

The objective of this project was to automate the creation of complex environments using **Kubernetes**, **Ansible**, and **PostgreSQL**, akin to **Terraform**, but with a **C++ backend** and a **Spring Boot API**. This tool streamlined configuration processes, offering rapid and tailored environment setups. Engaging in **R&D**, witnessing the tool's practical application in client projects was rewarding. My focus spanned **C++**, **Docker**, and **Java Spring Boot**, contributing to the tool's efficiency and versatility.

DEVELOPMENT OF AN EMBEDDED SYSTEM FOR AGCO

In this context, I took part in the development of the integrated interface of a software for a connected vehicle using **Qt**, derived from **C++**. By managing **bus messages** and implementing the **graphical user interface**, I came to appreciate the subtleties of interface design in a **low-level language**. Working as part of a team of consultants, we adopted **agile** method and version control via **Bitbucket**.