

## Profile

### Full-Stack Engineer with 12 years of international experience building user-centric web applications.

Passionate about clean code, performance, and thoughtful system design, with hands-on experience across monolithic systems and cloud-native microservices.

Specialized in React, Node.js, Java/Spring, Symfony, and containerized deployments on AWS (Fargate, Terraform, Docker).

## Main Skills

### Core Skills

- Full-Stack Web Development
- Software Architecture & System Design
- End-to-End Ownership
- Performance Optimization & Scalability
- Cloud & Distributed Systems
- Microservices Architecture
- Code Quality, Testing & Maintainability

### Technologies

- **Front-End:** React.js, TypeScript, Redux, MobX
- **Back-End:** Node.js, Java / Spring Boot, Symfony, Microservices
- **Databases:** MySQL, PostgreSQL, Oracle / PL/SQL, MongoDB, Elasticsearch
- **Cloud, DevOps:** AWS (Fargate, S3, CloudFront), Docker, Terraform
- **Observability & Monitoring:** OpenTelemetry, Prometheus, Grafana
- **Testing & Tooling:** Jest, Junit, Mockito, PHPUnit, Python

**Languages** French (Native), English (Fluent, PTE Academic 84/90, CEFR C1)

## Experience

Nov. 2023 - Today  
Saint-Memmie  
France

### Full-Stack Engineer (Freelance)

#### La Maison De L'Eleveur

- Enhanced front-end performance and user experience, boosting engagement and navigation, increasing conversion rates, and raising the **Google Lighthouse score from 83 to 94**.
- Upgraded back-end from **Symfony 4 to Symfony 5**, with extensive **code refactoring**, improving scalability, maintainability, and performance—reducing page load time by **up to 75% (from 1200ms to 300ms)**.
- Redesigned the email system with **SPF, DKIM, and DMARC** implementation, improving security and **reducing email rejection rates by 80%**.
- Decoupled email processing using **message dispatching, partial asynchronous handling**, and a **retry queue**. Built space-efficient custom message handlers to ensure **reliable delivery within shared hosting constraints** (Apache + PHP, no native background workers).

#### Champsagne Carole Haudot

- Developed a **custom configuration interface**, transforming a previously static website into a more dynamic and manageable platform.

#### Saint Joseph College of Maasin, Leyte, Philippines

- Took over and **revamped an unfinished grading application**, originally developed by a student, addressing **critical security flaws, extensive bugs, and unstable code**. Refactored key components, implemented new features, and continue to enhance its functionality and security.

May 2023 - Oct. 2023  
Melbourne, Victoria  
Australia

### Software Engineer (Frontend) – Specialist Experience Team

#### Canva

- **Implemented infinite scroll on the user activity log page** of a specialized internal web app, enabling troubleshooting specialists to access unlimited historical data. Optimized data fetching by handling microservices with and without pagination support, using **React**, and **MobX**.

- **Designed and developed a dynamic theme module** to enable seamless integration of seasonal and event-based decorations (e.g., April Fool's, Christmas) into the web application.
- **Refactored the codebase**, replacing deprecated components and services, and migrating internal API calls and components to their latest versions, resulting in improved **stability, maintainability, and performance**.
- **Increased test coverage** by implementing **comprehensive unit tests** for previously untested component presenters.
- **Contributed to shaping an 18-month strategy** to mitigate **linear cost escalation** due to user growth by leveraging **machine learning, OpenAI language models, and usability enhancements** for specialist tools.

Dec. 2019 - Apr. 2023  
Saint Memmie  
France

#### Full-Stack Engineer (Freelance)

##### La Maison De L'Eleveur

- **Developed an automated quote generation system** handling 39 different templates using **Dompdf**, enabling seamless creation and delivery of PDF quotes to customers. This **freed up the workload of 2.5 team members**, allowing them to focus on higher-value tasks.
- Initially **built 8 custom product assistants using vanilla JS**, allowing customers to easily order products like **custom-cut metal sheets, pre-assembled kit doors for agricultural buildings, and gutters** on the website. Later, **rewrote one assistant using React and TypeScript** for improved performance and scalability.
- **Designed and implemented dynamic pricing modules**, calculating product prices based on multiple factors, including **custom specifications and quantity/length**.
- **Introduced full responsiveness** to the front-end, **tweaked the UI for touchscreens**, and optimized the website for tablets and smartphones, **enhancing the mobile experience**.
- **Developed a custom order management system**, allowing quotes to **be converted into orders** using a **temporary token**.
- **Developed a tracking module that monitors unfinished orders** at each step. If a customer abandons an order, a commercial representative is alerted to follow up via call or email.
- **Enhanced website reliability** by adding **comprehensive test classes** to prevent regressions.
- **Refactored and upgraded the website** from **Symfony 3 to Symfony 4**, improving **performance, security, and maintainability**.

##### Champagne Carole Haudot

- **Designed and built a modern website** featuring a **simple online shop**, leveraging **React and React Redux** for a smooth user experience.

May 2018 - Nov. 2019  
Princeton, New Jersey  
USA

#### Software Developer (International Volunteer in Business Program)

##### Coface North America

- **Maintained and enhanced** policy management and collection back-office support applications, working with **Java EE (Servlets, JSP) and Oracle PL/SQL**.
- **Contributed to solution architecture and design**, optimizing system interactions and database queries for better performance.
- **Designed and developed interfaces** to facilitate seamless communication between different software applications.
- **Developed a debugging tool for PDF generation**, allowing the team to bypass the **manual multi-step policy creation process** by directly passing XML documents for PDF output. This significantly **reduced debugging time and improved efficiency**.
- **Maintained and updated the development team wiki**, ensuring accurate and up-to-date documentation.
- **Refactored and maintained legacy code**, improving maintainability and performance where possible.

- **Strengthened application security** following a **penetration test**, implementing a **password encryption upgrade** and a **complete rework of the “Forgot Password” process**, reinforcing security across the main application and related services.

Sep. 2017 - Apr. 2018  
Saint Memmie  
France

#### Full-Stack Engineer (Freelance)

##### La Maison De L'Eleveur

- **Migrated** the codebase from Symfony 2 to Symfony 3, **refactored** legacy code, and resolved compatibility issues, enhancing security and maintainability.
- **Developed and optimized new website features** using **Symfony, MySQL, Bootstrap, and jQuery**, enhancing user experience and streamlining online transactions.
- **Assisted in setting up a secondary e-commerce website** for the company's **garden and home supply retail store**. Created a fork of the existing platform and ensured a smooth technical foundation, allowing the client's team to take over its development.

Oct. 2014 - Aug. 2017  
Lille  
France

#### Research And Development Engineer

##### CNRS / Université de Lille / CRISTAL Lab. / NOCE Team

- **Published two papers** in the **IEEE International Conference on Advances in Social Network Analysis and Mining (ASONAM) 2016**.
- **Designed, built, and maintained a distributed platform** capable of collecting and processing **up to 2 million tweets per day**, with a **2-year full data retention policy**, powered by **Elasticsearch and TensorFlow**.
- **Developed secured internal APIs** for **remote control of the distributed platform and efficient data retrieval**, implementing **JSON Web Token (JWT) authentication**.
- **Built an interactive and user-friendly dashboard** to visualize processed data for third-party users, using an **asynchronous stack with AngularJS, Node.js, and Express.js**, with **JWT-based authentication** for secure access.
- **Researched and developed software prototypes** for **sentiment analysis, gender detection, and geolocation extraction from tweets**, using **simple algorithms and recursive neural networks**.

Jun. 2014 - Sep. 2014  
Vouziers  
France

#### Full-Stack Engineer

##### La Maison De L'Eleveur

- **Built a fully custom e-commerce website** to replace their previous **WordPress-based solution**, which had excessive, unnecessary options. The new system provided a **streamlined, easy-to-use configuration panel** tailored to their specific needs.
- **Designed the UI in Sketch**, exploring **three different design approaches—skeuomorphism, abstract, and a hybrid of both—** before implementing the final version.
- **Rebuilt the entire website from scratch** in just **3 months**, using **Symfony 2, MySQL, Bootstrap, and jQuery**, improving performance, maintainability, and flexibility.
- **Revamped the online product catalog** (1,500+ references) and **introduced an intuitive UI for configuring custom-tailored steel sheets**, reducing the number of page loads needed to reach a product from **10 to just 3**, significantly improving user experience.

Mar. 2013 - Feb 2014  
Lille  
France

#### Research And Development Engineer

##### CNRS / Université de Lille / CRISTAL Lab. / NOCE Team

- **Designed and built custom-made bracelets** that communicated with each other using **Arduino Nano, Xbee modules, RFID chips, and other components**, enabling interactive experiences.
- **Developed custom contactless quiz terminals** using **Arduino Mega, Ethernet shields, and RFID shields**, enhancing user engagement and interactivity.

- **Created a central control system** using **Java** and **MongoDB** to remotely manage, configure, and log usage of the custom devices.
- **Built a data visualization dashboard** with **Node.js**, **Express**, and **MongoDB**, allowing stakeholders to filter and interpret usage data in a meaningful way.
- Deployed and maintained the custom devices and control system at the **Museum of Fine Arts in Tourcoing, France**, and conducted user experience evaluations to assess performance and gather feedback.

## Publications

### Computer architecture model for flexible social network analysis

Giovanetti, R. & Lancieri, L | 2016 ASONAM 2016

### Multilevel exploration in Twitter streams

Giovanetti, R. & Lancieri, L | 2016 ASONAM 2016

## Education

### Master's Degree in Computer Science

Université de Lille, France (2013)

- Erasmus Exchange program at TU Graz, Austria (2012)

### Bachelor's Degree in Computer Science

Université de Lille, France (2011)

### University Diploma in Computer Science (DUT Informatique),

Université de Reims Champagne-Ardenne, France (2010)

## Links

🏠 [giovanetti.fr](https://giovanetti.fr)

🔗 [github.com/ganoninc](https://github.com/ganoninc)

🌐 [linkedin.com/in/romainjg](https://linkedin.com/in/romainjg)

📄 [leetcode.com/romainjg](https://leetcode.com/romainjg)