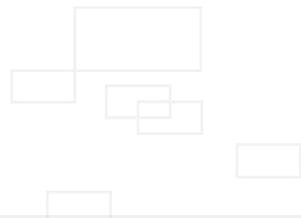


John ALLOU

Senior Software Engineer



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SKILLS

Programming Languages:

- Java
- TypeScript
- Python
- JavaScript
- Dart
- HTML / CSS

Frontend & Mobile Development:

- React
- Angular
- Flutter
- React Native
- Android (Java)

Cloud & DevOps:

- AWS / Azure / Heroku
- Kubernetes
- Docker
- GitHub / Bitbucket/ GithubAction
- GitLab / Jenkins / CircleCI / CodeMagic / Nexus
- CI/CD pipelines
- SonarQube/ SonarLint

Backend Development:

- Kafka
- Spring Boot
- RabbitMQ
- Nest.js
- FastAPI
- ExpressJs
- Node.js
- Elasticsearch

Databases:

- SQL : PostgreSQL, Oracle, MySQL, MsSQL
- NoSQL : MongoDB, DynamoDB
- Firebase
- Spark

Tools & Environments:

- Linux / Windows / Debian
- Agile (Scrum, Kanban)
- Jira, Confluence
- Communication & Leadership

Software Architecture & Design:

- API REST / WebSocket
- SOLID / Clean code
- Microservices
- DevOps & CI/CD
- Scalable architecture

EXPERIENCES

Senior Software Engineer

United Nations - WIPO, 06/2025 - 12/2025

Lausanne

Specialized Agency of the United Nations responsible for promoting innovation and intellectual property protection worldwide.

At the **World Intellectual Property Organization (WIPO – United Nations)**, I led the **complete redesign of the WIPO Lex architecture and platform**, a large-scale global database for intellectual property laws and treaties. My goal was to **modernize the system, boost performance, and ensure long-term scalability**. Leveraging Java (Spring Boot), Angular, TypeScript, AWS, and MySQL, I restructured the back-end into modular services, implemented efficient caching and optimized queries, and introduced asynchronous data processing to reduce latency. On the front-end, I built reusable Angular components and improved rendering logic for faster, smoother interactions. I also enhanced **CI/CD pipelines** and contributed to the **SEP project**, streamlining QC workflows for traceability. These initiatives **significantly improved load times, system reliability, and maintainability**, enabling a robust and high-performing architecture aligned with UN standards.

ELCA, 12/2022 - 03/2025

Lausanne

Swiss company specializing in IT consulting, software development and digital transformation.

- **BCV** : Designed and developed an Android banking application used by over 100,000 users, integrating advanced features such as banking transactions, QR code payments, an interactive chatbot, and customizable dynamic components.. Collaboration with international teams to ensure efficient coordination and on-time project delivery

- **Gesundheitsdatenraum Web Portal** : Lead developer - Led front-end and back-end development, integrating APIs for the web portal. team coordination, code review and onboarding of new developers. Secured the application with Auth2 OIDC protocol. Design of technical architecture and implementation of DevOps practices to guarantee project quality and performance.

- **BCVS** : Developed backend services and integrated high-performance APIs for internal banking tools at Banque Cantonale du Valais (BCVS), supporting thousands of daily transactions and ensuring seamless operations across 34 branches. Managed external service integrations to enhance system interoperability and collaborated closely with the project team to meet specific client requirements with reliability and scalability in mind.

- **Loterie Romande** : Created interactive animations for Loterie Romande's online gaming platform, enhancing user experience for thousands of daily active users. Integrated and developed front-end features based on interactive mock-ups and precise specifications.

- **Abilis** : Maintained and continuously improved the Abilis e-health platform, used by over 500 partner pharmacies across Switzerland. Focused on front-end development in React to ensure a smooth and intuitive user interface. Coordinated with an offshore team of experts to optimize efficiency and deliver high-quality solutions.

- **Edulog** : Redesigned the user interface to improve usability and user experience. Development and enhancement of back-office functionalities, including user management and integration of authentication systems. Resolution of critical bugs and reinforcement of system security.

- **UNIGE** : Redesign of the University of Geneva website to improve ergonomics and user experience. Use of dynamic technologies to develop personalized functionalities adapted to the university's needs.



Analyst Consultant

Axileo, 09/2021 - 11/2022

Paris

Engineering and technology consulting firm, offering technical expertise and support for innovative projects.

Orange WH-A : Development front-end & backend, API integration, integration and deployment of websites, with design of technical documents.

Development of the MSCA project, a website for managing, monitoring and creating commercial offers for Orange, Bouygues Telecom and Free.

Participation in the CCA project, a customer service intranet site to manage subscriptions and customer billing, for Orange and Bouygues Telecom.

Software Developer Anti-fraud and Terrorism

Société Générale 09/2019 - 09/2021

Paris

International bank offering financial services for individuals and businesses.

Developer in charge of the anti-money laundering and anti-terrorism tool: Development front-end & backend, API implementation, integration, testing, deployment on GUI pipeline- FILA-e project manager, monitoring and statistical analysis tool for bank fraud used internationally. Supervision and planning of functionalities. Infrastructure management of the deployed server environment.

FullStack Developer

Freelancer, 10/2019 - 12/2022

Paris

Tailor made project : Design and development of web and mobile applications tailored to customers' specific needs. **Project management:** Complete project lifecycle management, from needs analysis to final delivery, ensuring deadlines and quality are met. **Technical documentation:** Drafting of detailed technical documents, including functional specifications, user guides, and architecture documents, in response to calls for tender.

Collaboration with customers: Working closely with stakeholders to ensure a precise understanding of requirements and to provide appropriate solutions. **Maintenance and support:** Updating existing applications, correcting bugs and optimizing performance.

Internship : Developer, Digital Assistant

Caisse d'allocation Familiale, 05/2019 - 08/2019

Paris

French public body managing social benefits to support families.

- **Vacation registration tool :** Creation of a software solution enabling beneficiaries to easily register their children for vacation stays, with management of personal data and automation of registration processes.
- **Fraud tracking and payment management:** Design and implementation of a digital assistant for generating fraud monitoring reports and processing payment orders on national platforms, guaranteeing data reliability and regulatory compliance.

PROJECTS / FREELANCE

MyPug (03/2022 - 05/2022)

- Development of a mobile social network for photo sharing with advanced image upload management and a back office dedicated to moderation and user monitoring. Creation of a personalized feed powered by a recommendation algorithm that analyzes preferences and browsing history. Integration of real-time messaging with Socket.io and push notifications via Firebase. Design of a scalable architecture based on NodeJS, Express, and MongoDB, deployed on AWS with Docker to ensure performance and scalability.
- Technology: Flutter, NodeJS, Express, Typescript, MongoDB, AWS, Docker, Socket, Firebase, Code Magic, GIT

Bloden (10/2021 - 01/2022)

- Development of a real-time mobile gaming app with integrated betting and chat system. Implementation of a game engine synchronized via Socket.io and integration of independent mini-games allowing users to place bets and issue challenges. Addition of an invitation system to invite friends to games and join private sessions. Back-end management of bets, winnings, and game progress. Integration of secure payments with Stripe and use of Firebase for notifications. Implementation of a back office for tracking games and transactions.
- Technology: Flutter, NodeJS, Express, Typescript, MongoDB, Socket, Firebase, Code Magic, GIT

Tootsweet Dashboard (04/2021 - 07/2021)

- Design of a statistical analysis application intended to optimize promotional offers for a B2C service. Development of a dynamic dashboard in React Native and integration of HapiJS APIs for data processing. Implementation of advanced visualizations and automated testing with Jasmine to ensure the reliability of indicators.
- Technology: React Native, BitBucket, HapiJS, Typescript, Jasmin, MongoDB, GIT.



YoutubeScrapper (05/2020 - 06/2020)

- Development of a mobile application capable of analyzing YouTube video content and generating recommendations based on detected similarities. Implementation of an automated analysis module and a video ranking system, with server-side storage and processing in J2EE.
- Technology: Flutter, J2EE, CodeMagic, MySQL, GitLab.

Robot Racer (02/2019 - 05/2019)

Development of an autonomous robot based on Raspberry Pi capable of following a predefined path using real-time image processing. Implementation of an embedded vision module analyzing the camera feed to detect guidelines and adjust the trajectory. Integration of simple machine learning algorithms to improve the robot's movement accuracy and responsiveness.

- Technology: Python, SVN, Machine Learning.

DEGREES

Master's Degree Software Architecture

ESGI

09/2019 - 07/2021

Paris

Bachelor's Degree Computer Science (MIAGE)

Paris Descartes University

09/2018 - 05/2019

Paris

LANGUAGES

French

Native speaker

English

Fluent

