

Louai ALOUI

SOFTWARE ENGINEER

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Passionate and versatile Full-Stack Software Engineer with 3+ years of experience in building scalable, high-performance systems using Node.js, NestJS, Python, and modern frontend stacks like Next.js and React. Proven success in leading microservice architecture, cloud infrastructure (AWS), CI/CD automation, and real-time communication systems. Strong background in financial data pipelines, SaaS platforms, and blockchain integrations. Actively seeking full-time opportunities to contribute to innovative product teams and take on challenging backend or platform engineering roles.

Skills

Languages: JavaScript, TypeScript, Python

Backend: Node.js, Express.js, NestJS, Flask, Strapi, Koa, GraphQL, REST APIs

Frontend: React, Next.js (App Router & Page Router), Gatsby, Redux Toolkit, Tailwind CSS

Databases: PostgreSQL, MongoDB, DynamoDB, MariaDB, SQLite3, QuestDB, CockroachDB

DevOps & Cloud: AWS (EC2, S3, SES), Docker, Kubernetes, GitHub Actions, CircleCI, Prometheus, Loki, Grafana, Wasabi

Other: Prisma, TypeORM, Sequelize, Zookeeper, Zello, Mattermost, Confluence

Work Experience

Quantech Solution Partners

Nice (Remote)

FULL-STACK ENGINEER

Jan. 2024 - Dec. 2024

- Transitioned to full-stack engineering, automating workflows for financial data (DataScope, OPRA) with Python scripting, reducing manual effort by 30 %.
- Spearheaded the migration from QuestDB to PostgreSQL, boosting query speed by 40% and ensuring data consistency across distributed microservices.
- Replaced REST APIs with GraphQL, enabling flexible and efficient data queries and reducing average response times by 25%.
- Built CI/CD pipelines on GitHub Actions with AWS EC2 and Next.js/Flask stack, reducing deployment time by 50%.
- Integrated Confluence with Microsoft Teams, increasing team collaboration efficiency by 20% through streamlined knowledge sharing.
- Implemented push-to-talk functionality using Zello, enhancing real-time communication across global teams, reducing response delays by 50%.
- Deployed and configured Mattermost in Docker, improving task management processes and boosting team coordination by 15%.

FRONTEND ENGINEER

- Designed and implemented interactive data visualizations, boosting user engagement metrics by 30% for dynamic web applications.
- Developed a modular frontend architecture with Next.js 14 (App Router) and Redux Toolkit, centralizing state management and enhancing performance.
- Integrated NextAuth for secure authentication, reducing onboarding issues by 20% while maintaining compliance with modern security standards.
- Built customizable UI widgets with dynamic resizing and positioning, improving dashboard personalization options for users.
- Authored reusable React hooks to abstract complex logic, enhancing code quality and reducing redundancy across components by 25%.
- Collaborated with backend teams to deliver cohesive user experiences, aligning frontend with APIs to meet 100% of project deadlines.

Digital Rogue Wave

Montplaisir, Tunis

BACKEND ENGINEER

Dec. 2022 - Sep. 2023

- Developed a SaaS referral system using NestJS and Apache Kafka, enabling seamless event-driven communication and handling 1M+ events monthly.
- Designed and implemented microservices for email notifications, reward redemptions, and referral tracking, following Domain-Driven Design (DDD) principles to ensure scalability.
- Dockerized services including PostgreSQL, Redis, and Prometheus, and migrated the database to CockroachDB, boosting system performance by 35%.
- Optimized an open-source Zookeeper cluster to improve Apache Kafka coordination, reducing event-processing latency by 25%.
- Collaborated with frontend developers to integrate Next.js 13 (Page Router) with backend APIs, ensuring timely feature delivery and seamless user experiences.
- Built CI/CD pipelines to automate build, test, and deployment processes, decreasing deployment time by 40% on AWS EC2 instances.
- Achieved 90% code coverage through unit testing with Jest and integration testing with Cypress, ensuring reliability and minimizing bugs in production.
- Set up real-time monitoring with Prometheus, Loki, and Grafana, reducing mean time to resolution (MTTR) by 30% for production issues.
- Partnered with cross-functional teams to deliver features from ideation to deployment, improving overall system scalability and user satisfaction.

Wagmi Tech UG

Berlin (Remote)

SOFTWARE ENGINEER (FREELANCE)

Apr. 2022 - Oct. 2022

- Contributed to the development of an NFT marketplace leveraging Hedera Hashgraph, ensuring secure and efficient decentralized transactions.
- Implemented Apollo Server and client, reducing query response times by 25% and enabling seamless data fetching between frontend and backend.
- Integrated Algolia for advanced search capabilities, improving search speed by 40% and supporting complex queries for marketplace data.
- Migrated from serverless MongoDB to a MongoDB cluster, enhancing database scalability and enabling real-time updates through database listeners.
- Collaborated on smart contract development and integrated Web3.0 technologies, strengthening expertise in blockchain and distributed ledger ecosystems.
- Utilized technologies like Express, MongoDB, Gatsby, TailwindCSS, Docker, Kubernetes, Prisma, and GraphQL to design and build a scalable, high-performance system.

Bulldozer

Quebec (Remote)

SOFTWARE ENGINEER INTERN (GRADUATION PROJECT)

Jul. 2021 - Jan. 2022

- Led backend development by integrating headless CMS technology, reducing development time by 30% and improving scalability for content management.
- Built fully automated CI/CD pipelines on CircleCI for containerized applications, increasing deployment efficiency by 40% and ensuring consistent production rollouts with Docker and AWS.
- Designed and delivered a responsive, dynamic Next.js frontend, enhancing user engagement and achieving cross-device compatibility.
- Developed and deployed scalable APIs using Strapi, Node.js, Koa, and AWS Lambda serverless functions, optimizing application performance and reducing server costs.
- Optimized database operations using SQLite3 for testing and MariaDB for production, leveraging Bookshelf.js and Knex for efficient ORM and query building.

Education

ESPRIT - Honoris-United-Universities

Ghazela, Ariana, Tunis

ENGINEERING DEGREE IN COMPUTER SCIENCE AND SOFTWARE ENGINEERING

Sep 2016 - Jan. 2022

- Participated in the university's website updates twice, contributing to the site's maintenance and enhancement.