

- A b d e l l a h N a s s i m M E R I D J A -

Rust Systems & Blockchain Engineer

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Software Engineer with 5+ years of experience building backend systems, cloud-native applications, and distributed services. Experienced in Rust, Golang, Linux, Docker, Kubernetes, PostgreSQL, and blockchain technologies. Interested in low-level systems programming, distributed infrastructure, Web3 protocols, and high-performance backend services.

PROFESSIONAL EXPERIENCE

Sonatrach, Algiers (On-site) • System Engineer

09/2025 – present

- ▶ Maintaining Open-Source services deployed in the organization: NextCloud(SHDrive), CrushFTP, VisioConference Solution.
- ▶ Worked on integrating Ansible and Rundeck for automating software updates to Linux based host machines.
- ▶ Deployed and maintained Monitoring solution based on Prometheus and Grafana for the SHDrive production servers.

Azybia, Canada (Remote) • Senior Full-Stack Engineer

07/2024 – 03/2025

- ▶ Implementation of a property rental Software as a Service.
- ▶ Implementation of the web application front-end using Next.js 14
- ▶ Implementation of the Backend services using Nest.js
- ▶ Integrated Features: Search Map, Rental Unit Virtual Tours 360, Visits, Boosting, Tenant Screening, Payment, Lease Signing and more.
- ▶ Performed Unit and E2E testing with automated tests as well as 100% code coverage.
- ▶ Applied Multiple Optimizations: Spatial Databases and Indexes, Caching, Distributed Locks.
- ▶ Deployment to Digital Ocean for staging and production as well as Vercel.
- ▶ Maintained workloads serving +1000 users.

Rahi-Hakma, Algiers (Remote) • Project Manager & Full-Stack Engineer

01/2024 – 07/2024

- ▶ Conducted project management and product development processes to plan and implement the startup's web applications and mobile applications.
- ▶ Designed and implemented the startup's web applications and mobile applications using modern technologies including: Next.js, Nest.js.

- ▶ Managed application's post-development processes such as deployment to production on private VPS.

Code 213, Algiers (Part-Time) • Instructor

10/2022 – 05/2024

- ▶ Instructing and coaching students in Full-Stack web development using MERN Stack: HTML, CSS, JS, Front-end with React and Backend with Node.js and Express and MongoDB.
- ▶ Instructing and coaching students in a Python Programming bootcamp.

Edraak Technologies, Algiers • Software Engineer

09/2023 - 12/2023

- ▶ Implemented the company's ERP using Odoo with custom modules development.
- ▶ Designed, implemented, and deployed serverless backend services to AWS Lambda, DynamoDB and Amplify.
- ▶ Designed and implemented the company's web products using Vue.js and Nuxt.js for multiple clients.
- ▶ Conducting Code Reviews and PR management for the team.
- ▶ Documenting code and creating documentation for other engineers in the team.

Naseej, Saudi Arabia (Remote) • Software Engineer

01/2023 - 08/2023

- ▶ Designed, implemented and tested the Student Admission Portal product of the company for university clients, using React.js and Material UI Library.
- ▶ Designed, implemented, and tested the Student Engagement Platform (SEP) mobile application product for university clients, using Expo React Native and Tamagui.
- ▶ Designed, implemented, and tested backend services for the SEP product using the Frappe Python framework.
- ▶ Wrote documentation about the implemented features for other engineers on the team.

Namla, Algiers (Remote) • System Engineer

09/2022 - 12/2022

- ▶ Designed, implemented, and tested a High-availability Edge Controller for the Namla Platform, using **Golang**.
- ▶ Worked with gRPC, distributed systems, Linux networking and infrastructure automation.
- ▶ Developed systems services and networking components in **Rust**.
- ▶ Focused on performance, reliability and fault tolerance.
- ▶ Wrote documentation on Confluence for other engineers on the team.

La Rochelle University L3I Laboratory, France • Research & Development Intern

09/2021 - 09/2022

- ▶ Graduation Project about Autonomous Networks and Intent-based Networking including Cloud-Native, NFV, SDN, Software Engineering and 5G/6G.
- ▶ Designed, implemented and tested a novel cloud-native software architecture for our autonomous system solution.
- ▶ Integration of Intelligence techniques: DRL and Metaheuristics for Intent Assurance.
- ▶ Graduated with Honors.

- ▶ Published a research article about the findings of our project. DOI: 10.1109/MCOM.003.2300367

CodeLabsAcademy, Germany (Remote) • Full-Stack Developer & Content-Creator 07/2021 - 01/2022

- ▶ Ensured the development of the Company's Website and E-Learning Platform.
- ▶ Team Leading the Front-end team and Quality Assurance.
- ▶ Conducted Integration tasks with the Back-end team.
- ▶ Technologies: NuxtJS, VueJS, JavaScript/TypeScript, ReactJS, Redux, Node/Express, MongoDB.
- ▶ Created the content for the Web Development bootcamp of the company.

SiriusNET, Algiers • Mobile Engineer Flutter 10/2020 - 06/2021

- ▶ Design and production of a mobile application for food ordering and delivery.
- ▶ Implementation with Flutter and BloC pattern.
- ▶ Integration with a backend written in PHP.
- ▶ Deployment on the App Store for the IOS platform.

EDUCATION

Computer Systems Engineer Degree • Higher School of Computer Science, Algiers

Graduation Year (2022)

- ▶ From the top 8% of students of my promotion.
- ▶ Specialized in Computer Systems.
- ▶ Graduation project: Intent-driven Autonomous System for Integrated 3C Management and Orchestration in Next Generation Cloud-Native Digital Infrastructures.
- ▶ Graduated with **Honors: 16.58/20**

Computer Science Master's Degree • Higher School of Computer Science, Algiers

Graduation Year (2022)

- ▶ Graduation thesis: Intelligent Orchestration in Next Generation Networks.
- ▶ Graduated with **Honors: 16.24/20**

Baccalauréat • Mohammed Hadjress High School, Algiers

Graduation Year (2017)

- ▶ Mathematics Branch, Graduated with **Honors: 17.03/20**

CERTIFICATIONS

- ▶ Machine Learning Specialization by DeepLearning.AI.
- ▶ Deep Learning Specialization by DeepLearning.AI.
- ▶ BlockchainExpert by AlgoExpert.io.
- ▶ Software Design and Architecture by Coursera.
- ▶ Software Product Management by Coursera.

QUALIFICATIONS (SKILLS)

Programming Languages • HTML, CSS, JavaScript, TypeScript, Golang, Solidity, Rust, SQL, Python, Java, Dart, C, C#, C++.

Rust Ecosystem • Rust, Tokio, Axum, Actix Web, SQLx, Serde, Clap, Tracing, Async Programming, Concurrency, SQLite, PostgreSQL, Cargo, Unit Testing, Integration Testing.

Frontend Development • React.js, Next.js, Vue.js, TailwindCSS.

Mobile Development • React Native Expo, Flutter.

Backend Development • Node.js, Express.js, Nest.js, Firebase.

Databases & Storage • MySQL, PostgreSQL, MongoDB, Firestore, S3.

Artificial Intelligence Development & Data Science • NumPy, Pandas, Matplotlib, TensorFlow, Cursor, LLM Models(ChatGPT, Gemini, Claude)

DevOps • CI/CD, Linux, Docker, Kubernetes, Ansible, Rundeck, Prometheus, Grafana, Loki.

System Design & Architecture • Design Patterns, Clean Code, Monoliths, Microservices, Scalable Architectures.

Cloud Computing • AWS, Azure, GCP.

Others • Git, GitHub, Gitlab, Jira, Azure DevOps, Trello, ClickUp, Office, Latex.

Soft Skills • Good Communication, Risk Management, Time Management, Team Player, Goal-oriented, Research-driven.

Languages • Arabic (Native), French (TCF C1), English (Proficient)

HIGHLIGHT PROJECTS

AMANOS • An Intent-Driven Autonomous Management and Orchestration System for Next Generation Networks 5G/6G.

- ▶ The System accepts Natural Language described intents through its web interface.
- ▶ The System converts these intents into Network/Service configurations to ensure the desired service requirements through its Intent Fulfilment Engine
- ▶ The System continuously monitors the Intent and updates Network/Service configuration through its Intent Assurance Engine.
- ▶ Tested the System on a real-world Video 360° Service use case.
- ▶ **Technologies:** Golang (Gin), Python (TensorFlow, Flask), Docker, Kubernetes, Graph DB, React.js, RASA.

ADD • A Prototype ERC-20 Token for a Central Bank Managed Algerian Digital Dinar.

- ▶ The Central Bank of Algeria (Owner) is the only one allowed to mint new tokens.
- ▶ Banks can request the transfer of tokens to their accounts.
- ▶ The Project is still in development.
- ▶ **Technologies:** Solidity, Hardhat.

Zakatkom • A Decentralized Web3 Application for Zakat enforcement.

- ▶ Users can create Zakat Beneficiary accounts.
- ▶ Users can create Zakat giver accounts.
- ▶ Automatic Zakat payments on time.
- ▶ Automatic Zakat Distribution for beneficiaries.
- ▶ Project is still in development.
- ▶ **Technologies:** Solidity, Hardhat.

HouseLoc • A Web3 Application for Smart Rentals.

- ▶ Web DApp for allowing users to rent homes using cryptocurrency.
- ▶ Users can create either tenant accounts or landlord accounts.
- ▶ The platform matches tenants with potential homes that suit their profile.
- ▶ Project is still in development.
- ▶ **Technologies:** Next.js, Nest.js, Solidity, Hardhat, Rust, Anchor.

SH-Updates • A platform for automated software updates for Linux.

- ▶ Implemented a Control Node using Ansible and Rundeck.
- ▶ Implemented repository mirror servers for Ubuntu, RHEL, SUSE, Debian.
- ▶ Tested Linux updates workflow on test servers
- ▶ **Technologies:** Linux, Ansible, Rundeck.

Rust TODO • A Todo CLI App (Learning Project).

- ▶ Parse command-line arguments with Clap.
- ▶ Developed the app core functionality to create, read, update, delete todos.
- ▶ Saved todos with serialization to JSON file through Serde.
- ▶ **Technologies:** Rust, Clap, Serde

Rust Password Manager • A CLI-based Password Manager (Learning Project).

- ▶ Parse command-line arguments with Clap.
- ▶ Developed the app core functionality to setup the vault, create new passwords, list services, delete service.
- ▶ Added authentication through a Master's Password.
- ▶ Added Encryption with AES.
- ▶ Implemented clean-architecture principles like Abstract Repositories
- ▶ Saved Vault data to SQLite.
- ▶ **Technologies :** Rust, Clap, SQLx, AES-GCM, Argon2

Rust Task API • An Axum-based API like Trello (Learning Project).

- ▶ Implemented Authentication routes for user creation and login
- ▶ Handled Authorization through middleware.
- ▶ Added routes for Task CRUD operations.
- ▶ **Technologies:** Rust, Axum, jsonwebtoken, argon2, Tower, SQLx, PostgreSQL

Rust CLI Monitor • A CLI-based tool for monitoring system resources & processes (Learning Project).

- ▶ Monitoring system resources like CPU usage, RAM usage, Disk, Networking.
- ▶ Monitoring running processes.
- ▶ Monitoring GPU utilization and information.
- ▶ Monitoring system temperature.
- ▶ **Technologies :** Rust, Sysinfo, Nvml-wrapper, Serde