# Nessal Zakaria Rachid

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## PROFILE

Full Stack Developer and 4th-year Computer Science student committed to crafting modern, scalable web applications. Proficient with Next.js, NestJS, and Express, I deliver robust, performance-driven solutions that enhance user experience. Self-motivated and continuously evolving, I excel at architecting systems from scratch and exploring innovative AI integrations.

### **EDUCATION**

**Higher School of Computer Science (ESI-SBA)**, Sidi Bel Abbès Engineering Degree in Computer Systems

Sept 2021 - Present

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### **TECHNICAL SKILLS**

- **Programming Languages:** JavaScript (ES6+), TypeScript, Java, Python, Bash, HTML5, CSS3, Tailwind CSS.
- Frameworks & Libraries: Next.js (SSR/SSG), React.js, Node.js, Express.js, NestJS, emphasizing SEO, performance, and scalability.
- **Software Engineering:** Object-Oriented Functional Programming, modular architecture, SOLID principles, Agile/SCRUM methodologies, and rapid technology adoption.
- **Databases & ORMs:** PostgreSQL, MySQL, MongoDB (schema design, indexing, data modeling); proficient with Prisma, TypeORM, and Sequelize.
- API & Backend Development: Design of secure RESTful and GraphQL APIs, JWT authentication, microservices, and cloud-native patterns.
- DevOps & Cloud: Version control with Git/GitHub, CI/CD pipelines (GitHub Actions), Docker GCP, Vercel, and Netlify.
- Web Performance & Testing: Server-side rendering, bundle optimization, caching strategies, Lighthouse improvement, plus Test-Driven Development (Jest, Cypress).
- Collaboration & Tools: Figma for design collaboration, Postman for API testing.

#### **PROFESSIONAL STRENGTHS**

- Deliver end-to-end projects from system design to production deployment on time and on spec.
- Learn new frameworks and tools fast through self-directed research and experimentation.
- · Think logically and structure code for long-term maintainability.
- Solve bugs and performance bottlenecks quickly with systematic debugging.
- Collaborate effectively using clear communication and version-controlled team workflows.
- · Adapt to new stacks, product requirements, and priorities with minimal ramp-up time.

#### EXPERIENCE

Full Stack Developer, Personal Projects - Sidi Bel Abbès

- Built and deployed multiple full stack web apps to master modern development workflows.
- Developed dynamic UIs with React.js and Next.js, and created secure APIs with Express.js and NestJS.
- Integrated MongoDB and MySQL databases; owned the full dev cycle from design to deployment.

Full Stack Developer, University Project – Incubator Management Platform –Jan 2025 – May 2025Sidi Bel AbbèsJan 2025 – May 2025

- Collaborated on a full-featured platform to manage startup incubators and project pipelines.
- Built a scalable REST API with NestJS; handled user roles, project status tracking, and PostgreSQL integration.
- · Delivered a responsive React frontend and managed deployment and system stability.

**Back-End Developer**, University Project – "Overtime Hours" API – Sidi Bel Jan 2024 – Jun 2024 Abbès

- Designed and implemented a REST API from scratch using Node.js and Express.
- Engineered the data schema, core business logic, authentication layer, and test suite.
- Worked in a small technical team, following agile principles and version-controlled collaboration.

### PROJECTS

### **Incubator Management Platform**

- Full stack platform for managing startups and tracking incubated projects.
- Developed a secure API using NestJS with PostgreSQL integration and robust user role management.
- Built a responsive React frontend and managed all aspects of deployment and lifecycle.

## **Overtime Hours API**

- Back-end API for managing overtime hours, requests, and validations in an academic setting.
- Developed with Node.js and Express, integrating a MySQL database and implementing JWT authentication.
- Collaborated in a team environment, contributing to schema design, security, and testing.

### **Car Rental Platform**

- Full stack car rental solution with server-side rendering using Next.js and a RESTful API built in NestJS.
- Integrated vehicle listings, booking systems, user authentication, and a simulated payment flow.
- Optimized for performance, mobile responsiveness, and a clean user experience.

### Personal Portfolio Website

- Responsive portfolio built with React and Tailwind CSS to showcase projects and professional experience.
- Features project highlights, a comprehensive experience section, and an interactive contact form.
- Designed with a mobile-first approach, including dark/light theme support.

## E-commerce Shop (Frontend Only)

- Created a dynamic shopping interface featuring product cards, a dynamic cart, and a favorites system.
- Used React, Context API, and Tailwind CSS for state management and responsive design.

· Focused on clean UI, superior user experience, and mobile-first design principles.

# **SNMP Network Management Interface**

- Developed a Next.js interface to visualize and interact with network topologies from GNS3 simulations.
- Integrated SNMP protocols to execute OID queries and retrieve vital network performance data.
- Designed for effective network monitoring and fault diagnosis in simulated environments.