LUIS ALBERTO ZACARIAS DANIEL

📞 22-12-39-43-23

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BACHELOR DEGREE IN COMPUTER SCIENCE ENGINEERING

Check my portfolio

I'm Luis Alberto, soon to graduate as a Computer Science Engineer. I have experience in backend development using Java (Spring Boot) and Node.js with ExpressJS, participating in projects focused on microservices and distributed architectures. I'm currently collaborating on freelance projects that integrate Spring Boot, NestJS, and AWS, strengthening my skills in cloud computing, service deployment, and scalable solution design.

EDUCATION

Bachelor Degree in Computer Science Engineering

Benemérita Universidad Autónoma de Puebla, MX, 2023

Technical Bachelor Degree in Programming

CETis No. 67 "Daniel Cabrera Rivera", MX, 2017

CERTIFICATION & TRAININNING

Full Java Master from zero to expert 2023 - Udemy

AWS Academy Graduate - Cloud Developing

KEY SKILLS

- Java SE (Java Core, Generics, Collections, Streams, Lambda)
- Java EE (Servlets, JSP, JDBC, Hibernate, JPA)
- Spring (Spring Core, Spring Boot, Spring Data, Spring MVC, Spring Cloud, Spring Security)
- Maven
- JavaScript (Objects, Functions, DOM, ES6, Web Development, Async/Await)
- NodeJs (Express, ORM, Security)
- SQL/No-SQL - Mongo DB
- Git version controller
- ReactJS (Hooks, Forms, Redux, Router)
- HTML, CSS
- AWS (EC2, S3, ELB, ASG, EFS, Cognito, RDS)

SOFT SKILLS

Engagement	Critical thinking
Honesty	Adaptability
Teamwork	Creativity

LANGUAGES

English - Basic - Intermediate level
French - Basic
Spanish - Fluent

EXPERIENCE / PROJECTS

Backend Developer JR

Digyto Solutions, Mexico | Jan 2025 – May 2025
Project name: Digybot

I worked as a full stack developer, participating in the complete development cycle, from creating backend services to integrating them into the frontend. I mainly worked with **NestJS** for the implementation of APIs and microservices, although I also handled projects in **Java with Spring**, leveraging my specialization in this technology. Part of my responsibilities included the integration of AI agents and services, consuming external **APIs** such as OpenAI to enhance the user experience and application functionality. I was also in charge of mapping and consuming data in **MySQL** databases using Sequelize as **ORM**, as well as creating new tables when necessary. The developed microservices were deployed through Docker containers in **AWS** environments, where I performed connection, update, and deployment tasks using MobaXterm, ensuring that new versions were properly integrated. Additionally, I handled bug fixing, improved functionalities, and integrated services in Angular, maintaining smooth communication across all layers of the system.

Contributions:
- Implementation of **REST** services in **NestJS** according to the system architecture and business needs.
- Integration of AI agents and APIs (such as OpenAI) to extend the functionalities of existing services.
- Participation in backend service development with Java and Spring, applying best practices in structure, security, and code maintenance.
- Design and mapping of entities, as well creation and consumption of tables in **MySQL** using **Sequelize** ORM in **NestJS.**
- Implementation and consumption of services from the frontend developed in **Angular**, ensuring proper communication between layers.
- Attention and resolution of reported bugs.
- Maintenance and evolution of functionalities in existing projects, prioritizing system stability and performance.
- Collaboration with frontend and backend teams, ensuring smooth integration of new features.
- **Deployment** and update of microservices in **AWS** environments using **MobaXterm** and **Docker** containers.
- Execution of deployment and maintenance tasks for cloud service instances.

Tools: NestJS, Angular, Java (Spring Framework), JPA, MySQL, Sequelize, Docker

Java Backend Developer JR

IDS Comercial, Mexico | Jan 2024 – May 2024
Project name: Citas

As a backend developer, I actively participated in the full development cycle of **REST** and **SOAP** services using **Java**. My responsibilities included designing and implementing **APIs**, consuming external services, and resolving reported bugs. I participated in daily stand-ups, coordinating with the frontend team to integrate functionalities. To ensure quality, I developed comprehensive unit tests and documented services through sequence and use case diagrams, ensuring compliance with established business rules.

Contributions:
- Implementation of **REST** services according to system architecture.
- Consumption of external REST and **SOAP** services.
- Entity mapping with **JPA**.
- Construction of **SQL** queries using **JPQL**.
- Handling frontend team requests.
- Bug tracking and resolution.
- Code documentation.
- Project documentation using user diagrams, use case diagrams, and sequence diagrams.
- Implementation of unit tests aligned with the system architecture.
- Test coverage using Eclipse IDE and **Sonar** in **Jenkins** platform.
- Optimization of **SQL** queries to improve performance.
- Management of transactions and concurrency with **JPA**.
- Monitoring of code coverage metrics in Jenkins.
- Collaboration in service architecture design.
- Resolution of production environment incidents.
- Maintenance and evolution of existing services.

Tools: Java 8, JPA, SVN, JUnit5, STS, WebLogic, OracleDB, Jenkins, SonarQube

Java Backend Developer (microservices)

Freelancer, Mexico | May 2023 – Sep 2023
Project name: Ecommerce APP

Microservices architecture developed with **Spring Boo**t, composed of specialized services: auth, discovery, gateway, order, and product. Communication between services is implemented through **OpenFeign**, using the **Circuit Breaker** pattern with **Resilience4j** to ensure fault tolerance and system resilience.

For observability, we integrated a complete stack with **Grafana** and **Prometheus** for real-time metric monitoring, and **Zipkin** for distributed tracing that enables tracking requests across services. The infrastructure is containerized with **Docker**, ensuring consistent deployments, and identity management is delegated to **AWS Cognito** for scalable and secure authentication.

Contributions:
- Implementation of an **API Gateway** for routing and request redirection.
- Configuration of Eureka Server for service registration and **discovery**.
- Integration of Sleuth and Zipkin for distributed tracing and debugging.
- Implementation of the **Circuit Breaker** pattern with **Resilience4j** for system resilience.
- Communication between microservices through **OpenFeign** for **REST** calls.
- Centralized security with **AWS Cognito** and **Spring Security** for authentication and authorization.
- Monitoring system with Grafana and Prometheus for real-time metrics.
- Configuration of **Docker** Compose for orchestration of auxiliary services.
- Implementation of integration tests with **JUnit 5** to validate complete flows.
- Application of the Builder design pattern for constructing complex objects.
- Containerization of microservices and management of inter-service dependencies.

Tools: Java 17, Eureka, Spring Security, Spring Cloud, Sleuth, MySQL, PostGreSQL, Docker, AWS Cognito

MERN Stack Developer

BUAP | Aug 2022 – Aug 2023
Project Name: Blog System, FCC

As part of my social service, I developed a blog system using the **MERN** stack. It's a platform where users discuss topics related to computer science and can perform multiple actions such as creating blogs, following users, liking posts, and saving blogs for later. Users can register and go through an authentication simulation with the backend and **MailTrap**, which handles the sending of verification emails. Additionally, **Cloudinary** was used for image uploads, allowing easy recognition of both users and published blogs. All registered users can chat with others who are also registered, achieved through **WebSockets** implemented with **Socket.IO**.

Contributions:
- Creation of queries within a UI development environment.
- Construction of a **REST API** using **ExpressJS** and **MongoDB**.
- User registration and login functionality.
- User authentication with **JWT**.
- Development of a user-friendly graphical interface with **ReactJS**.
- "Forgot Password" functionality.
- Creation of chat rooms.
- Image upload management using **Cloudinary**.
- Deployment of both server and frontend on **AWS EC2** instances.
- Integration of multiple frontend dependencies such as Tailwind, Material UI, React-Select, and Swiper.
- Implementation of CRUD actions: create, edit, delete, and retrieve all blogs.
- Search engine management for blogs, users, and categories.
- Additional user actions: commenting on blogs, following users, liking blogs, and saving blogs to read later.
- Implementation of a user dashboard for information filtering.
- Frontend state management using the **Redux** library.

Tools: NodeJS, ExpressJS, ReactJS, AWS EC2, Mailtrap, Cloudinary, MongoDB, Redux, TailwindCSS

Java Backend Developer (microservices)

Freelancer, Mexico | Dec 2022 – Apr 2023
Project name: Blog app

Task and project management system developed with **JavaEE**, **JDBC**, **CDI**, and **MySQL**, deployed on **Apache Tomcat**. The application enables user registration, project creation, task management, and assignment to specific users. Project owners can invite collaborators and manage permissions, ensuring effective team coordination and task tracking. The frontend includes **JSP** views, **jQuery** for dynamic interactions, and **Tailwind CSS** for interface design.

Contributions:
- Architecture and system development using **JavaEE** and **Apache Tomcat**.
- Implementation of **CDI (Contexts and Dependency Injection)** for dependency management.
- User management system with registration and authentication features.
- Database design and modeling in **MySQL** with **JDBC** for persistence.
- Development of the project management system with creation and management capabilities.
- Implementation of a collaboration system allowing user invitations to projects.
- Permission control and access restriction management using **Cookies**.
- Business logic to prevent users from completing other users' tasks.
- Member management functionality (adding/removing collaborators).
- Frontend view development using **JSP**.
- Asynchronous interaction implementation with **jQuery**.
- User interface design with **Tailwind CS**S.
- Configuration and deployment on **Apache Tomcat server**.

Tools: Spring Boot, Spring Cloud, Spring Security, Spring Data, Resilience4j, Eureka, H2, Zipkin, Sleuth,

JUnit5.

NodeJS Developer

Freelancer, Mexico | May 2022 – Dic 2022
Project name: Clients - Products

GraphQL API developed in **Node.js** with Apollo Server for an e-commerce **CRM** system. Implemented **JWT-based security**, **MongoDB** database with **Mongoose ORM**, and relational models to manage users, products, and multiple orders. On the frontend, developed an interface using React.js and **Tailwind CSS**, integrating **JWT** authentication for a secure purchase flow with controlled access.

Contributions:
- Architecture and development of **GraphQL** API with Node.js and **Apollo Server**.
- Implementation of authentication and authorization system using JWT.
- Design of user management system with customer registration capability.
- Creation of **typeDefs** and **resolvers** to optimize GraphQL data flow.
- NoSQL database modeling with **MongoDB** and **Mongoose ORM**.
- Design of MongoDB references in user-order-product relations with multi-order support.
- Configuration and deployment on **AWS EC2**.
- Frontend interface development with **React.js** and **Tailwind CSS**.
- Full frontend-backend integration with authentication state management.
- Optimization of **GraphQL** queries for improved performance.
- Development of dashboards with charts for performance analysis.
- Reporting features for top-selling users and most active customers.
- Data visualization with interactive charts for business intelligence.

Tools: NodeJS, GraphQL, Apollo Server, JWT, AWS, ReactJs, Tailwind