

Alonso Rapado

Senior Software Engineer — Full-Stack & Backend Development

Madrid, Spain



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I am a Software Engineer with a strong background in backend and full-stack development. Most of my experience is in building reliable, scalable applications and APIs, and making sure the systems I work on are clean, maintainable, and efficient. I have experience designing and integrating enterprise systems, developing APIs, and working with modern frameworks. While my main focus is backend and full-stack work, I'm also comfortable deploying apps to the cloud and working with tools like Docker or K8s.

Experience

Senior Software Engineer

NTT Data Business Solutions

Nov. 2024 – present

Copenhagen, Denmark

- Developed and optimized a Generative AI solution for **Børns Vilkår**, cutting processing time significantly by using **FastAPI, MongoDB, and Azure OpenAI**; performed hands-on model evaluation and prompt tuning.
- Designed, implemented, and maintained a **validation API with AI support** using **Python, Terraform, IBM WatsonX, and IBM Cloud**, improving data reliability and automation.
- Led feature design and contributed to **Angular development** for the **ROCCAI platform**, collaborating on UI architecture and ensuring seamless integration.
- Contributed to **frontend development and technical decisions** in the **Warehouse Optimizer project**, working with **React, Rust, TypeScript, Drizzle ORM, and Effect framework** to enhance functionality and performance.

Software Engineer

MOTOROLASOLUTIONS

Sep. 2024 – Nov. 2024

Copenhagen, Denmark

- Developed microservices with **Elixir**, adopting a fail-fast approach to improve robustness and scalability.
- Built **Spring Boot REST APIs** for microservices architecture in a critical communications environment.
- Developed and integrated message brokers including **NATS, RabbitMQ, and Kafka**; using **Azure EventHubs** for streamlined event-driven communication.
- Conducted unit testing with **JUnit** and **ExUnit**, alongside integration testing using **PACT contracts** and **TILT**, to ensure code quality.
- Orchestrated system integration with **Docker** and **Kubernetes**, applying Infrastructure as Code to automate deployments.

Part time Software Engineer

MOTOROLASOLUTIONS

Jun. 2022 – Sep. 2023

Copenhagen, Denmark

- Improved and maintained **Jenkins CI/CD pipelines**, VM environments, and physical servers to ensure performance and reliability.
- Implemented automated testing with **Selenium** and **RobotFramework** for UI and unit testing in Python.
- Led an automation project optimizing power consumption and computational balance in real servers, streamlining operations and improving efficiency.

Junior Software Engineer

INDRA Sistemas

Jan. 2021 – Aug. 2021

Madrid, Spain

- Developed **Angular components** based on UX designs within a dashboard framework, emphasizing a library-oriented approach.
- Aligned client-side services with a **Java Spring Boot** backend using REST APIs, ensuring seamless data flow.
- Applied **Agile methodologies** within a software development team. Iterative delivery and collaboration.
- Gained foundational knowledge of microservices with **Kubernetes**, acquiring initial exposure to infrastructure principles.

Software Engineer Intern

TELEFONICA

Dec. 2019 – Dec. 2020

Madrid, Spain

- Transformed conceptual ideas into prototypes using **Python, TypeScript, and MongoDB**.
- Collaborated with cross-functional teams to align prototypes with user requirements.
- Maintained and extended features within a dashboard application using **.NET, TypeScript, Azure, SQL, and Docker**.
- Assisted in project planning by contributing to timelines, technical knowledge and resource allocation, supporting successful project execution.

Programming and Robotics teacher

Multiple institutions

2017 – 2019

Madrid, Spain

- Introduced kids and pre-university students to **robotics and coding with Python**, aiming to spark curiosity and passion for technology.
- Designed lesson plans balancing theory with hands-on projects, making sessions engaging and accessible for different learning levels.
- Adapted teaching methods based on student feedback and progress, creating a supportive and motivating learning environment.

Education

MSc. in Autonomous Systems Engineering

Denmark Technical University

2021 – 2023

Lyngby, Denmark

BEng. in Software Engineering

U-TAD (Centro Universitario de Tecnología y Arte Digital)

2016 – 2020

Madrid, Spain

Technical Skills

Programming Languages: Java, Elixir, Python, C++

Frontend & Frameworks: React, Angular, JavaScript, TypeScript, HTML, CSS, Sass, Tailwind

Backend & Services: Spring, .NET, Node.js, Kafka

Cloud & DevOps: Azure, Kubernetes, Docker, Terraform, GitHub Actions, Jenkins

Databases & Tools: PostgreSQL, MongoDB, Postman

Languages

English - C1 Cambridge Advanced | 2021

Spanish - Native

Danish - Module 2, learning | 2025