Miguel Aréjula Aísa

arejula10@gmail.com | +34 601 49 10 89 | Linkedin | GitHub | Blog

Education

Master in Software Engineering, University of Southern Denmark Sept 2025 – June 2027

- **Coursework:** Advanced Software Engineering Methodologies, Advanced Software Architecture and Analysis Techniques and Big Data and Data Science Technology

Bachelor in Software Engineer, University of Zaragoza Sept 2021 – June 2025

- **Coursework:** Software Engineer, Distributed Systems, Concurrent and Distributed Systems Programming, Software Architecture, Prerequisite Engineering, Verification and Validation, Agile Methodologies and Quality, and Software Engineering Laboratory
- Achieved high honors in Information Systems II and Verification and Validation, demonstrating exceptional proficiency and understanding in these subjects.

Cambridge English Advance July 2024

Experience

Software Engineer University of Zaragoza June 2024 – August 2025

- Researcher in project TED2021-130449B-I00 at the University of Zaragoza, where I led development of a custom web application for the Traumatology Department (Hospital Clínico Lozano Blesa), from requirements gathering with medical staff to architecture design and final delivery.
- Built with React, Express, FastAPI, and PostgreSQL, streamlining operations and expected to support around 50 patients per day, improving efficiency and quality of care.
- Integrated and processed structured clinical data (CSV-based surgical records) into a relational model, enabling generation and validation of clinical pathways through Petri nets and formal methods.

Projects

PlayBeat github.com/PlayBeat

- Streaming service with web, mobile, and backend components enabling music and podcast publishing, listening, and synchronized playback across devices.
- Led the front-end team, developed the web application, and deployed it on Vercel.
- Managed communication with the backend hosted on Azure, ensuring proper integration and synchronized playback.
- Tools Used: Astro, Vercel, Node.js, Express, PostgresSQL, React Native, Azure

Message Broker github.com/MessageBroker

- A simple and efficient message broker implemented in Go, providing reliable message queuing and delivery capabilities for distributed applications. Efficient message queuing and delivery. Supports point-to-point, publish-subscribe, and request-reply messaging patterns. Lightweight and fast. Robust error handling and retries
- Tool Used: Go

Are-Dev are-dev.es

- Are-dev is a personal technical blog and YouTube channel focused on software development, front-end technologies, and modern frameworks.
- Publish blog posts and videos, sharing tutorials, project walk-throughs, and insights to engage the developer community.
- Tools Used: Astro, Vercel, Markdown

Energy Price Prediction (Big Data Project, Ongoing) github.com/BigDataProject

- Using Danish Meteorological Institute (DMI) weather datasets and national energy consumption/price data to analyze correlations and forecast future electricity prices.
- Expected insights include: renewable energy impact, peak price periods, seasonal patterns, and cost optimization windows.
- Applying big data frameworks and machine learning models to process large-scale datasets and deliver predictive analytics.
- Tools Planned: Kafka, HDFS, Kubernetes, Spark, Python