Daniel Villalobos

linkedin.com/in/ponytojas github.com/ponytojas ponytojas.dev

Senior software engineer that turns ideas into reliable, good-looking products. Comfortable hopping between TypeScript/Node, Go, Java, and Python, wiring them up to SQL or MongoDB, and polishing the UI in React, Vue, or Nuxt. I care about clean, secure code, real-time pipes (NATS, MQTT, V2X), and interfaces that feel as smooth as they look.

Work Experience

Senior Software Engineer

Lumibit

2024-Present

Valencia, Spain

- Lead end-to-end development of BMW engineering tools—from requirements gathering and UX design to coding and cloud deployment.
- Shipped a firmware-flashing application that lets engineers load test builds onto prototype vehicles in minutes instead of hours.
- Built an interactive dashboard that visualizes each car's internal electronic map, giving teams instant insight into network topology and fault points.
- Architected data and job-queue layers with PostgreSQL/MongoDB, Redis + BullMQ, and GraphQL APIs to keep performance snappy and workflows reliable.

Senior Software Engineer

ETRA I+D

2023-2024

Valencia, Spain

Research and new technologies department

- Delivered a public transport digital twin for the EU UPPER project (React + Deck.GL on the front end, Go/Node
 microservices and NATS on Kubernetes on the back end) to stream, map, and analyze live public transport data,
 used with more than 10.000 concurrent vehicles.
- Created a Kepler.GL-based historical public transport data analytics application to analyze transport coverage and user flows, and facilitate decision-making, used to analyze more than 10 million origin-destination entries.
- Technical lead for the EU UNCHAIN project, which aimed to improve last-mile logistics in cities using various analytics software and IoT devices on public roads.
- Implemented an improved automated code quality review system in the department, which helped reduce errors, improve the code refactorings and technical debt.

Full Stack Developer Bounsel 2022–2023

Valencia, Spain

- Led the migration of core application components from Vue to a Nuxt 3 monorepo, improving maintainability and scalability.
- Played a key role in enhancing the platform's performance and architecture.
- Created a sharing system with QR codes and OG data to improve the user engagement.

Software Engineer ThermoHuman 2021 - 2022

Remote, Spain

- Worked on developing and maintaining a performance-tracking platform for elite athletes, including professional football players and Olympic competitors.
- Focused on improving the user experience and ensuring code quality through testing and improved CI/CD systems
- Improved the DX of the platform creating multiple scripts and automations for platform upgrades tests and new developers onboard.

Alcalá de Henares, Spain

• Developed multiple Content Management System (CMS), Learning Management System (LMS) and study platforms with Moodle, EDX, Wordpress, Drupal and Joomla.

Designed, implemented and developed an IoT platform to control CO₂ in public spaces.

Al Researcher Narrativa 2017 - 2019

Alcalá de Henares, Spain

- Built data-to-text models for automated sports journalism, turning structured football match data into readable summaries.
- Developed automation scripts to manage the content generation pipeline

Education and Certifications

• M.Sc. Agile Software Development for the Web, University of Alcalá, Spain.

2022-2024

• B.Sc. Information Systems Engineering, University of Alcalá, Spain.

2017-2021

Publications

Evaluating V2X Communications in the CARLA Simulator for a Collaborative Planning Use Case

 Developed a V2X communication framework in the CARLA simulator using ROS and MQTT, enabling collaborative route planning with real-time recalculations. Evaluated A* and Dijkstra algorithms, demonstrating optimal performance across different map sizes to enhance autonomous driving and traffic management.

Technologies and Languages

Languages: NodeJS, JavaScript, TypeScript, Golang, Python, Dart, Java

Technologies: PostgreSQL, MySQL, MongoDB, Redis, GCP, K8S, Git, Express, NestJS
 Other: Data structures and algorithms, mentoring, product perspective