

Víctor González

Senior backend engineer and composer

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Backend engineer with more than fifteen years building data-heavy services: ingestion pipelines, message-driven microservices, PostgreSQL at tens of millions of rows. At xarvio (BASF) I led the services that turned satellite and machinery data into the maps that drive farm machinery. A composer with a conservatory degree, I want to build the tools musicians work with. I take vague requests to production on schedule, with little supervision.

Experience

Freelance

Nov 2026 – present

Software engineer

geomatico · Open-source software cooperative

Oct 2023 – Oct 2026

Partner and senior engineer

- Built the service framework every backend here runs on, for both Django and FastAPI
- It handles transactions, data access, http semantics and headers
- Its strict, mechanical conventions make AI coding agents productive, under review
- Backend technical lead, code reviews and technical contact with clients across projects
- CUBIA (LiDAR forest inventory): data platform running research algorithms and publishing data
- ICM-CSIC: rebuilt Observadores del Mar, normalizing its data and linking species to WoRMS

Stack: Python, Django, FastAPI, PostGIS, React, TypeScript, MapLibre, Docker, AWS

Career break

Jan 2023 – Sep 2023

Composition studies

xarvio · BASF Digital Farming

Aug 2018 – Dec 2022

GIS engineer, geospatial backend lead

- Led the data pipeline from satellite imagery to prescription maps for farm machinery
- Led a three-person geospatial subteam, owning its goals and dates
- Co-led the backend's technical design; built the geospatial library every microservice used
- Owned ingestion and publishing among a few dozen isolated microservices on Kubernetes
- Served millions of zoned maps to many thousands of farmers, in high availability
- Ingested machinery, drone and satellite data: million-point files, topology problems
- Did many of the backend's code reviews; presented sprint reviews to stakeholders
- Production support: Kibana, Grafana and Datadog monitoring, and on hand when things broke

Stack: Java, Spring, Kubernetes, RabbitMQ, PostGIS, GeoServer, GeoTools, JTS, GDAL, GraphQL, AWS, Docker

Freelance

Jan 2012 – Jul 2018

Software engineer, GIS

CSGIS · GIS consultancy, Germany

Jan 2014 – Jul 2018

Main developer

- Web applications to view and edit spatial data, owned from design to deployment
- Designed PostGIS databases; deployed spatial data infrastructures in high availability

FAO · National Forest Monitoring Systems

Nov 2017 – Jul 2018

GIS consultant

- Platform for forestry specialists across Latin America to publish data with minimal programming
- Wrote the documentation and trained the specialists

gvSIG CE · Open-source desktop GIS

Jan 2012 – Jul 2018

Core developer

ITACA Institute, Universitat Politècnica de València

Feb 2009 – Feb 2011

Research programmer (part time)

- CFD research group: test automation, data cleanup, jobs for supercomputing centres

Projects

imogen: plain-text scores editable by voice or language models, round-tripping MusicXML

scanterpoint: optical music recognition on Audiveris for real-world scans: PDF to MusicXML

Google Summer of Code 2011: geoprocessing language GGL as an OGC WPS service, for 52°North

Education

Degree in Composition

2025

Conservatorio Superior de Música Joaquín Rodrigo, Valencia

- Thesis: Musical creation as an algorithm

Computer Engineering, Master's level (Ingeniero en Informática)

2011

Universitat Politècnica de València

- Thesis: MICSc, a parallel computational fluid dynamics code based on PETSc

Skills

Backend: Python, Django, FastAPI, Java, Spring, SQL, GraphQL, RabbitMQ

Infrastructure: Kubernetes, Docker, AWS

Observability: Grafana, Kibana, Datadog

Geospatial: PostGIS, GeoServer, GeoTools, JTS, GDAL/OGR

Frontend: React, TypeScript, MapLibre

Languages: Spanish (native), English (fluent), Catalan (fluent)