Fernando González Cortés

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Education

Master's degree in Software Engineering	Universidad Politécnica de Valencia, Spain	June 2003

Fluent in English, French, German and Spanish.

Employment

Scaleway (lead French cloud provider), Remote from Spain   January 2023 – Present
Freelance
- Implementation of a serverless database product. Currently entering private Beta.
- Development of a functional proof of concept in a team of three developers.
- Added FerretDB support to the *managed database* product.

Juni Technology AB (Swedish fintech), Remote from Spain   April 2022 – December 2022
Software Engineer III
- Development and maintenance of the backend supporting the *Know Your Business* (KYB) process that takes place during customer on-boarding.
- Customer support.

Toptal (top 3% freelance network), Remote from Spain   November 2021 – March 2022
Freelance
- Developed client libraries for different cryptocurrency exchange APIs, for Menai Financial Group.

Parknav (real time parking), Remote from France   February 2019 – December 2020
Staff software engineer
- Responsible for the company CI/CD pipelines testing and deploying services in the K8s production cluster
- Responsible for monitoring production services.
- Replaced an Azure API gateway by Kong Ingress, saving the company 2000$/month.
- Reduced cluster memory requirements by 50% by optimizing memory usage in data intensive services.
- Built a garage pricing API from beginning to end: implementation, testing, deploylment, figuring out and implementing pricing models, etc.
- Applied machine learning models to partially automate the migration from map data between two Open Street Map versions, which allowed to upgrade the city maps more regularly at a lower cost.
- Developed several data portals: https://portal.parknav.com, https://places.parknav.com

Several clients, Remote from France   October 2016 – December 2018
Freelance
- Developed a collaborative map (https://www.bankgeheimnisse.ch/map) for the Association for the promotion of Swiss bench culture, to document benches in Switzerland. The map has more than 20.000 benches at the moment.
- Developed on my own initiative a real time map of public transport speed in Pays de Gex / Geneva showing current status, past data and 24 hours of predictions.

<u>FAO United Nations</u>, Rome, Italy & Remote from Germany   January 2013 – September 2016
Geospatial Software Engineer
- Developed a web application to publish country national forest data in the context of the different national REDD programs (***R****educing* ***E****missions from* ***D****eforestation and Forest* ***D****egradation*). Deployed the application in Argentina, Paraguay and Ecuador.
- Fixed GeoServer bug: https://osgeo-org.atlassian.net/browse/GEOS-7243.

<u>Several clients</u>, Remote from Spain   September 2008 – December 2013
Freelance
- Developed an Android app for a collaborative mapping platform.
- Developed a web tool to plan geotechnical studies for the Valencian Institute of Building.
- Built an application for image quality control in the context of the National Plan for Aerial Orthophotography in Extremadura region, Spain.
- Developed a query language to process spatial data regardless of its location (database, file, web service) or format (shapefile, GML, PostGIS, TIFF, JPEG, etc.).

<u>IRSTV-CNRS FR2488</u>, Nantes, France   April 2007 – July 2008
Job Title
- Development of a pseudo-SQL engine middleware to query data in different formats and locations.

<u>University of Castilla-La Mancha</u>, Albacete, Spain   March 2005 – March 2007
Freelance
- Different projects related with webmapping and GIS desktop applications.

<u>IVER T.I.</u>, Valencia, Spain   March 2002 – December 2004
Junior Software Engineer
- Developed the core of gvSIG, an open source desktop GIS application

Technical Skills

- *Programming languages*: **Java** and **Golang**. In a lesser degree Javascript and Python. **Bash** enthusiast.

- *CloudProviders*: I have worked with several **GCP** products during my stay in Parknav: Pub/Sub, Cloud Build, Cloud Storage, etc. Currently working at a cloud provider and learning the cloud from the inside.

- *Devops tools*: At the moment I am provisioning resources with **Terraform** and deploying services with **Ansible**.

- *Deployment*: I am at ease working with **K8s**. I have installed Ingress controllers (**Kong**, **Traefik**), configured service accounts, deployed cronjobs, etc. Currently working a lot with **Docker**.

- *Monitoring*: II have set up logging aggregation using **Fluentbit**, **Elasticsearch** and **Kibana**. I am used to browse metrics and logs and set up alerts.

- CI/CD: Frequent user of CI/CD pipelines. I have set them up myself in **Gitlab** and **GCP Cloud Build**.

- *Distributed architectural patterns*: I have worked with **event sourcing**, solved consistency

issues with idempotent operations and orchestrators (**temporal.io**), implemented self-healing **feedback loops**, asynchronous communication through messaging brokers, etc.

- *APIs*: I've written multiple **REST** APIs and I am also familiar with the **gRPC** interface.

- *Data*: **PostgreSQL** in depth (configuration, wire protocol). I have also used MySQL, Redis and many different messaging solutions (**NATS**, **Kafka**, **RabbitMQ**).

- *Frontend*: Used **React** extensively in the past. And many old technologies lost in the mist of time.

- *Machine Learning*: I have a small theoretical background on statistics and have created different models to predict road traffic, match data from two different databases, among others. Used **WEKA**, and **R**.

- *Geospatial*: I have worked many years with geospatial technologies: PostGIS, OSM, Mapbox, GeoServer, Leaflet, GDAL.

Passions and Hobbies

- *Drums*: I play drums. Was a drum teacher for a year.
- *Nature & Sports*: Sports in nature (Running, Climbing, Hiking)
- *Raspberry Pis*!

References

Provided upon request