

Hector Muro

GIS Specialist - Senior Software Engineer

CONTACT

☎ +44 7395377275

✉ muro.hector@gmail.com

🌐 /in/hectormuro

🌐 /hectormauer

EDUCATION

MSc Geo-Information Science
Wageningen University and
Research
The Netherlands, 2016 - 2018

**BSc Geomatics and
Surveying Engineering**
Universitat Politècnica
de Catalunya
Spain, 2011 - 2016

SKILLS - TECH

- ⚙ Python, SQL, Rust, Graph DB
- ⚙ GIS Desktop: QGIS, ArGIS
- ⚙ GIS Software: GDAL, Shapely, Fiona, OGR
- ⚙ RESTful APIs. Flask, Aiohttp, FastAPI
- ⚙ DevOps: Git (Github, GitLab), CI/CD, Kubernetes
- ⚙ Scrum

LANGUAGES

- Spanish (Native)
- Catalan (Native)
- English (C1)
- Dutch (B1)
- Italian (A2)

COURSES

- Certified Scrum Master
by Scrum Alliance (2022)

PROFILE

I am a **Software Engineer** with 6+ years of experience, specialising in Geographic Information Systems (**GIS**), leading teams of up to 5 people.

I thrive in challenging situations and I enjoy working and learning from people. I am a passionate cyclist and I love cooking.

EXPERIENCE

● Senior Software Engineer

United Kingdom, Gigaclear Ltd, September 2022 - Present



As a **Senior Software Engineer** and team lead, I manage a team of five, focusing on the delivery and upkeep of the company's various design tools. I successfully led the transition from RDBMS to a Graph DB, showcasing my technical expertise. I am a dedicated problem-solver, thriving in collaborative environments and never shying away from a challenge.

Technical Role:

Led the transition of the company's design tools into efficient asset management solutions. As the company's focus shifted from rapid fibre optic construction to maintaining existing infrastructure, I adapted the tools to enhance data access and management.

- Successfully transitioned data from traditional RDBMS to Graph DB, improving query performance and user experience across several tools, addressing inefficiencies in managing network-structured data.

Led the team maintaining a complex data model with dozens downstream services, as RESTful APIs, introducing three breaking changes seamlessly with no downtime or user impact, while ensuring data types and methods remained as flexible as possible.

Team Lead Role:

- As a team lead, I had the ultimate responsibility for the on-time releases of the services owned by the team.

Responsible for onboarding new team members. As a team lead it was my duty to make sure new members were up-to-speed

● Software Engineer

United Kingdom, Gigaclear Ltd, February 2021 - August 2022

Functions:

- Developed and maintained the QGIS plugin that turned out to be the design solution for the company. Moving away from a contractor solution.
- Took ownership of the fast validation tool for all the company's designs, written in Rust.
- Became the Scrum Master of the team after taking part in the Certified Scrum Master course, leading all ceremonies and working to unblock team members when possible and dealt with stakeholders.

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EXPERIENCE

● Software Developer

United Kingdom, CGI UK Ltd, October 2018 - February 2021



As a **Software Developer** for the **Smart Grid** Department I developed and was responsible for the different DAG (Directed Acyclic Graph) in order to deliver a complex **Data Normalisation** model within the Smart Grid sector, to companies like WPD (Wester Power Distribution) and SSE (Scottish and Southern Energy).

Functions:

- Developed and managed Directed Acyclic Graphs (DAGs) for the Smart Grid Department's solution, normalizing and reconciling diverse electricity network data types for different electricity distribution companies, facilitating efficient data processing and management.
- Led the creation and maintenance of reproducible environments using tools like Vagrant and Ansible, ensuring seamless installation of the Data Normalisation solution on client premises. This involved intricate technical orchestration of jobs to standardize varied data into a unified model.
- Played a crucial role in release and delivery, managing on-site implementation and client interactions to guarantee successful project outcomes. This required adept problem-solving and interpersonal skills to meet client expectations and secure project funding.

● Software Developer (Intern)

The Netherlands, CGI Nederland B.V. March 2018 - October 2018

Functions:

- Implemented the I3S Standard (Indexed 3D Scene Layers) in Unity 3D, using point cloud data, to assist in the research for creating a data-twin of the Dutch rail network.

● Land Surveyor

Spain, Geodist S.L. September 2015 - September 2016

Functions:

- Land Surveyor in charge of the Instrumentation & Monitoring of buildings and infrastructure, during the construction of the tunnel under Glories Square in Barcelona.

ACHIEVEMENTS

- **2024** - Nominated to best Manager of the Year at Gigaclear.
- **2023** - Technology Champion of the Year at Gigaclear.