

Martin Hofrajtr

Systems Analyst & Solution Architect | **Data · Integrations · Development · GIS**

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SUMMARY

Systems analyst and developer with almost ten years of experience, more than seven of them in enterprise GIS for telecommunications infrastructure. I turn the needs of network planning, construction and operations into working solutions: I design data models and integrations, write specifications for development and see solutions through the database and map services into production. I like to simplify – I review old processes and solutions, remove what does not make sense and put rules into the data rather than into applications. AI (Claude Code) is part of my daily workflow: it proposes and writes code, while I decide on the design and approve every change.

WORK EXPERIENCE

CETIN a.s. | Software Engineer – Systems Analysis, Data Architecture and GIS Development | 05/2022 – present

In a team of 10, I am responsible for analysis, data models and GIS and database deployment, and I write specifications for the back end and front end; occasionally I also develop widgets for map applications. The platform has approx. 1,200 users a month.

- **Bringing GIS in-house (2024–2026):** configuration as code – services, maps, permissions and database deployed from the repository to 4 environments, out-of-process changes detected; a new domain on test in 1 day.
- **Unified fibre network planning and construction records (2025–2026):** one data model for 4 project types and business cases, CRM and investment management integration; over 100,000 records, error-free test migrations.
- **Replacing an outdated app for network safety inspections (2025):** model kept current from the network inventory and national map data, inspection dashboard; old app retired, data for approx. 60 users in one place.
- **Customer information system orders in GIS in near real time (2024–2025):** design of the database layer of an Apache Kafka integration – import tables, code list mapping, views and indexes.
- **Working with people:** application changes agreed with users at a regional office; three process options for creating construction projects, the conceptually right one adopted, unified terms and training.
- **Working with AI:** Claude Code daily for analysis, models, changes across the database and services, and documentation; the brief, review and approval of every change are mine, the AI writes code and tests.

CETIN a.s. | GIS Specialist | 09/2019 – 04/2022

ArcGIS Enterprise administration, gathering requirements for map services and applications, running legacy map applications (MS4W, MapProxy, Leaflet, OpenLayers).

CENIA | Data Analyst (part-time) | 09/2018 – 09/2019

Satellite data analysis (Sentinel, Landsat) with automation in Python.

Digiteq Automotive s.r.o. | Technical Assistant | 04/2017 – 09/2018

LiDAR data processing for an autonomous vehicle project.

Other | 2009 – 2024

Leader at a summer camp for children with allergies (15 years), floorball coach.

SKILLS

Analysis and architecture: Requirements analysis · Data modelling · Integration and data migration design · UML and BPMN · Documentation in Markdown

GIS: ArcGIS Enterprise (portal, map services, administration) · ArcGIS Pro · ArcPy · ArcGIS API for Python · ArcGIS Maps SDK for JavaScript · Raster analysis and image classification · Leaflet · OpenLayers

Data: Oracle SQL and PL/SQL (materialised views, scheduled jobs, optimisation) · ArcGIS geodatabase (attribute rules in Arcade, relationships, domains) · REST and SOAP APIs (OpenAPI, WSDL) · Apache Kafka (database side of the integration) · PostgreSQL/PostGIS · MariaDB

Development: Python (object-oriented design, Pandas, NumPy) · JavaScript · HTML and CSS · PHP · C# and .NET (beginner)

Tools: Git and GitLab (CI/CD) · Claude Code · Jira · PowerShell · IIS · Microsoft Entra ID (Azure) · HashiCorp Vault

EDUCATION, LANGUAGES AND COURSES

Education: Master's degree (Mgr.) in Cartography and Geoinformatics, Charles University (2017 – 2019) · Bachelor's degree (Bc.) in Geography and Cartography, Charles University (2014 – 2017)

Languages: Czech – native · English – upper-intermediate (B2, FCE 2014) · Spanish – advanced (C1, DELE)

Courses: Python – Introduction to Machine Learning (GOPAS, 2025) · JavaScript Algorithms and Data Structures (freeCodeCamp, 2022)

PERSONAL PROJECTS

Forecast Evolution, PSMF Calendar, Presidential Election and other projects at www.martinhofrajtr.cz

INTERESTS

Family, cycling, travelling, archival aerial photographs, amateur astronomy