

Gal Fajon

Software Engineer



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PROFILE

Computer Science graduate with six years of part-time software development experience. Experienced in designing, building and supporting production software across JavaScript, Node.js, Python, Java and C#.

EXPERIENCE

LGB d.o.o. Ljubljana, Slovenia
Student Software Developer (part-time) 2020 – Present

- Designed, built, debugged and supported production full-stack applications using JavaScript, TypeScript, Node.js and React.
- Created and maintained application databases in PostgreSQL, using the PostGIS extension to process spatial data.
- Built C#/.NET plug-ins and parsers that connected REST API data with CAD workflows.
- Created a modular web application and library for efficiently viewing and editing BIM models, point clouds, 3D geometry and other spatial data.
- Deployed services with Docker Compose and implemented Prometheus monitoring and Grafana dashboards for applications and host infrastructure.
- Maintained a legacy GIS application using a proprietary MS BASIC dialect, adding functionality through external APIs.

EDUCATION

University of Ljubljana Ljubljana, Slovenia
Faculty of Mathematics and Physics
MSc Computer Science and Mathematics 2025 – Present

University of Ljubljana Ljubljana, Slovenia
Faculty of Computer and Information Science
BSc Computer Science 2021 – 2025

TECHNICAL SKILLS

LANGUAGES	JavaScript, Python, Java, TypeScript, C#
WEB	Node.js, React, Next.js, Express, Material UI, Three.js
DATA	PostgreSQL, SQLite
DELIVERY	Docker, Docker Compose, Vite, Git, Jira
MONITORING	Prometheus, Grafana
GEOSPATIAL	PostGIS, QGIS, GeoJSON, OpenLayers

CERTIFICATION

2021 **CCNA: Introduction to Networks**
Cisco

LANGUAGES

ENGLISH	C1
SLOVENIAN	Native

SELECTED SOFTWARE PROJECTS

Modular 3D Geospatial Viewer

BSc thesis project

- Built a modular 3D mapping platform with an independent Vite-packaged core library and React user interface.
- Combined point clouds, GeoJSON geometry, IFC/BIM models, 3D Tiles and georeferenced imagery in one viewer using Three.js and specialised libraries.
- Developed a performance-focused Three.js-based renderer for the GeoJSON data format, covering all geometry types.
- Developed drawing and editing tools, cursor snapping across data types, project saving and loading, layer controls, an OpenLayers minimap and custom 3D clipping tools.

Parking and Access Operations Platform

- Built and deployed a full-stack application using React, TypeScript, Node.js and Vite to manage parking access, vehicle records, barriers and operational events.
- Integrated AxTraxNG access-control hardware through its REST API and modelled access points in PostgreSQL, mapping controller inputs and outputs to user interface controls as well as connecting them to external metadata such as video streams and call-centre phone numbers.
- Embedded live camera feeds through go2rtc and built an OpenLayers operations map that displays access-point locations and highlights incoming calls using a call-centre API.
- Implemented a server-side cache for event data that prevents repeated upstream requests when multiple clients poll for updates.

Internal Operations Portal Renovation

- Renovated a legacy company portal using Next.js, React, Material UI, Node.js, Express, PostgreSQL/PostGIS and Docker Compose.
- Built scheduled background jobs that periodically imported worker, absence, invoice and attendance data from an existing company accounting system into PostgreSQL.

Property Data Management Application

- Built a React application, packaged with Vite, through which client staff can search for, view and enter property records.
- Integrated the interface with an existing backend that uses SOAP and XML.
- Implemented permission-aware updates, user activity histories and Excel import/export functionality across all data views.
- Developed a Claude Code skill for the backend's proprietary BASIC dialect, substantially accelerating the development of new functionality.

Public-Sector Data Parsing Services

- Developed containerised Node.js API services that retrieve PDF documents from a public source and transform their contents into structured JSON for business applications.
- Implemented authenticated session handling, document processing, error recovery and operational logging around the external system.
- Built a job-queue system with controlled concurrency, pacing, cancellation, scheduled request status checks, retries and callbacks, using SQLite for data storage.

CAD Data and Symbol Integration Toolkit

- Built a two-way C#/.NET conversion toolchain that decompiled ten separate CAD symbol and line-style files into a canonical GeoJSON library, then recompiled it into two unified CAD resource files.
- Preserved drawing behaviour throughout the conversion, including scaling, compound line patterns, referenced symbols and polygon fills, while establishing one maintainable source of truth.
- Developed a CAD plug-in that imports GeoJSON data from the company GIS application as correctly layered and styled 2D/3D points, lines, polygons, labels and reusable blocks.
- Enabled the plug-in to package the shared symbol and line-style resources with drawings, allowing them to render correctly without requiring company files to be installed separately.

Brezavta.si Open-Source Contribution

- Contributed user interface improvements and applied fixes to an asset-generation pipeline for a public React, TypeScript, Vite and MapLibre transport application.