Semyon Skotnikov

GIS Analyst

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Belgrade, Serbia

Skills

• QGIS, ArcGIS Pro, ArcGIS Online, PostgreSQL/PostGIS, pgRouting
• Python, R, SQL, JavaScript
• Geopandas, Shapely, Rasterio, GDAL, PyTorch
• deck.gl, MapLibre GL JS, pydeck, H3, kepler.gl, R Shiny

Methods

• network and accessibility analysis
• isochrones
• multimodal routing
• PTAL
• OD and trajectory analysis
• semantic segmentation
• spatial validation
• raster-to-vector processing

Education

Master of Urban Studies
2021-2023
Higher School of Economics
Moscow, Russia

Bachelor of Regional Studies
2017-2021
Moscow State Linguistic University
Moscow, Russia

GIS Analyst with 3+ years of experience in urban mobility and transport planning, combining spatial data engineering, network analysis, GeoAI and interactive geovisualisation. Experienced in developing reproducible Python, QGIS and PostGIS workflows that turn mobility, imagery and location data into decision-ready analysis for planners, engineers and public agencies.

EXPERIENCE

GIS Analyst | 2023 - Present

MIC-HUB, Milan, Italy (remote)

— Delivered spatial analysis for 20+ urban, transport and infrastructure projects, from neighbourhood accessibility studies to regional mobility networks, using QGIS, Python and PostgreSQL/PostGIS.

— Co-developed and expanded an internal QGIS Network Analysis Toolbox integrating PostGIS/pgRouting workflows for network preparation, multimodal routing, isochrones, OD analysis and GTFS-based PTAL accessibility; reduced recurring processing by 30-40 hours per project.

— Built and validated an end-to-end GeoAI semantic segmentation pipeline for extracting parking rows from 20 cm aerial orthophotos using PyTorch and DeepLabV3+/ResNet34; achieved pixel and vector F1 scores of approximately 0.71 and detected 79% of labelled rows in a spatially independent validation area.

— Designed interactive and animated geospatial visualisations with deck.gl, MapLibre, pydeck and H3, including network-constrained OD flows, GPS trajectory animations and accessibility waves.

— Integrated and quality-controlled OpenStreetMap, TomTom, Google API, GTFS, GPS and raster datasets, producing reproducible analytical outputs and clear visual narratives for technical and non-

Public Transit Data Analyst | 2022 - 2023

MosTransProekt, Moscow, Russia

— Contributed geospatial analyses to major public transit initiatives (metro station closures, route network optimizations), supporting decision-making for city-wide infrastructure changes impacting millions of riders.
— Performed advanced spatial data analysis (QGIS, Python, R, SQL) to create interactive maps and data analytics reports, improving clarity for non-technical stakeholders.
— Developed over 30 scenario-based transit models, assessing route adjustments, closures, free ticket trials and more; provided data-driven recommendations to optimize travel times and reduce congestion.