

Babäk Firoozi Fooladi

[LinkedIn](#) | [GitHub](#) | [StackOverFlow](#)

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Data Analytics Engineer | Data Engineer

I am a service-minded, flexible and curious problem solver who can master new abilities and adjust to new environments. I have abundance of experience with spatial data, GIS, econometrics, statistics, and data science utilising R, Python, Julia, and SQL. with experiences in data related fields, I can implement data pipelines to acquire, ingest and store the data in scheduled processes, batches and ad-hoc delivery from various sources. Further, I conceptualise and design AI Agents to automate various tasks using local and serving models.

Technical Skills

Python:	●●●	R:	●●●●	Julia:	●●	STATA:	●●●●
AZURE:	●●	Econometric:	●●●●	Data Viz.:	●●●●●	Spatial data:	●●●●●
PostgreSQL:	●●●	SQLite:	●●●	DuckDB:	●●●●	MongoDB:	●●
ETL/ELT:	●●●●	PowerBI:	●●	SQL:	●●●	Excel:	●●●●
RAG:	●●●●●	LLM/NLP:	●●●●	Feature Extraction:	●●●●	AI Agents:	●●●●●

Soft Skills

Team work:	●●●	Self-organised:	●●●	Project management:	●●●●
Accounting:	●●	Quality control:	●●●●	Visual communication:	●●●●●
Quantitative research:	●●●●	Prompt engineering:	●●●●		

Experience

DATA ANALYTIC ENGINEERING <i>Self-Employed Apex-Heat – Startup</i>	Jan 2025 – Present <i>Part-time – Espoo, Finland</i>
<ul style="list-style-type: none">Resolving technical debt.Consulting the implementation of Generative AI.Migrating from Pandas to Polars to improve the efficiency and calculation time.Improving the design pattern, and writing documentations.Adjusting an improving data processing test coverage and testing methods.Optimising the SQL queries to improve response time.	
Ph.D. Candidate <i>Aalto University</i>	Sep 2020 – Present <i>Full-time – Espoo, Finland</i>
<ul style="list-style-type: none">Deploying and maintaining AZURE functions to store real estate data for research by scanning and scrapping websites for property advertisements.Designing data-pipelines for local AI to extract features from text and scrctured data.Applying Econometric, ML and data analysis for quantitative research.Processing HTML and PDF files and implementing RAG to extract structured data from the land use plan documents.Performing GIS analysis to produce and maintain research datasets, and geo-code real estate transactions.Designed and deployed database in PostgreSQL and DuckDB data lake for research data in our team.Preparing and updating visualisations for lecture and presentation.ETL/ELT processes with data stewardship duties to acquire, maintain and provide research data.Self-taught programming skills, and further obtained formal education in data science.	
Research assistant <i>Aalto University Full-time – Espoo, Finland</i>	Jun 2019 – Sep 2019
<ul style="list-style-type: none">Working on an Agent Based Modelling (ABM) solution to simulate parking pressure in Otaniemi campus area.Collaborating MIT CityLab project on agent based modelling simulation.implementing simualtions in GAMA Platform	

Data Analytics Engineer

Qissa kaupunkisuunnitteluanalytiikka Oy – Startup

Sep 2020 – Dec 2024
Part-time – Espoo, Finland

- Designing data pipeline to gather data from REST APIs, cleaning, **Geo-coding** and storing in accordance to the specifications requested by clients
- Creating **Spatial data** dashboard for spatial network analysis back-end. The analysis used HSL, HERE and HSY APIs to gather and process the data and perform **spatial network analysis**.
- Extracted, processed and served census data from US, Denmark, Sweden and Finland for calculating CO₂ emission from commuting.

Planning Assistant

WSP Finland Oy

Nov 2018 – Jun 2021
Part-time – Helsinki, Finland

- Performing **Spatial Data analysis**, Processing and storing spatial.
- Performing network analysis for pedestrian route choice forecast. The analysis was fine tuned to existing situation, and then used to forecast pedestrian flow after urban development
- Preparing analysis, graphs, maps and data **visualisations** for stakeholders, projects managers and clients.
- Providing **GIS analysis** to transport engineers, landscape designers, urban planners and architects.
- Setting up ArcGIS Online platforms for **maritime** planning.
- Programming and producing dynamic 3D model of the cities using ESRI CityEngine

Education**Aalto University**

Doctor of Philosophy in Technology, Real Estate Economics

Espoo, Finland
Sep 2020 - Present

Aalto University

MSc. (Tech.) Urban Studies and Planning in Real Estate Economics

Espoo, Finland
Sep 2018 - Jul 2020

University of Tehran

BA. Town Planning

Tehran, Iran
Sep 2011 - Jun 2015

Volunteer Work

- DataTribe collective moderator, contributor
- DataTribe collective speaker: Spatial data analysis, spatial data engineering
- Helsinki Data Week volunteer, contributor