

Babäk Firoozi Fooladi

Location: Espoo, Uusimaa, Finland

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

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Data Analytics Engineer | Data Engineer | Researcher

I am a service-minded, flexible and curious problem solver who can master new abilities and adjust to new environments. I have mastered time-series and time related statistical and machine learning models. I am service minded and can effectively provide data analysis, solutions and insights for the business needs. I leverage my experience in production environment, can-do attitude and fast learning capabilities to adapt to any environment, produce tailor made solutions with high quality standards, and deliver results in a timely manner. I have a strong foundation in data science, machine learning, econometrics and statistical modelling which I apply to solve complex problems.

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 consultant</i>	Jan 2025 – Present <i>Project based – Espoo, Finland</i>
offer an extensive range of data engineering, analytics, and business intelligence services tailored to your needs. With a focus on spatial data, urban environments, and the complexities of the built environment, I ensure that my expertise translates into actionable insights. Specialising in ETL/ELT processes, I adeptly parse and process diverse data types, presenting results that are not only clear but also aligned with your objectives.	
Building information backend Apex-Heat – Finland	Jan 2026 – Present
<ul style="list-style-type: none">Producing data pipeline to transform and calculate necessary measures of buildings spatial data in FinlandDeveloping API based pipeline for building calculations in Finland.Assessing and structuring the data models for EU countries.	
Optimisation, technical debt Apex-Heat – Finland	Jan 2025 – Dec 2025
<ul style="list-style-type: none">Resolving technical debt. Improving the efficiency of the data pipelines.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.	

- Providing IT service and assistance to my research team to resolve issues with their computers and software.
- Applying Econometric, ML, time-series 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

Jun 2019 – Sep 2019

Aalto University Full-time – Espoo, Finland

- 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 simulations in GAMA Platform

Data Analytics Engineer

Sep 2020 – Dec 2024

Qissa kaupunkisuunnitteluanalytiikka Oy – Startup

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

Nov 2018 – Jun 2021

WSP Finland Oy

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

GIS Operator

Aug 2015 – May 2016

University of Tehran

Part-time, Tehran, Iran

- Gathering, processing and preparing GIS data for urban designers to implement and test new directives for urban design in Tehran City
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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 Economic

GPA: 4.1/5, Graduated with honours

Espoo, Finland

Sep 2018 - Jul 2020

University of Tehran

BA. Town Planning

GPA: 16.67/20, Academic excellence

Tehran, Iran

Sep 2011 - Jun 2015

Uni-variate time-series:●●●	VAR time-series:●●●	Co-integration time-series:●●
multi-variate time-series:●●●	OLS:●●●●●	IV-OLS:●●●●
Panel data:●●●●	Generalised Method of Moments:●●●●	Generalised linear models:●●
Spatial econometrics:●●●●	Survival/time-to-event:●●●●●	Additive hazard models:●●●●●

Volunteer Work

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