

# Babäk Firoozi Fooladi

Location: Espoo, Uusimaa, Finland

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

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## Data Analytics Engineer | Data visualisation | Data Scientist

A highly skilled, service-minded and motivated Data Analyst holding a Ph.D. with over three years of experience in leveraging advanced analytics to turn complex datasets into analysis and process oriented insights. Proficient in Python, R, and SQL for data enhancement and processing, with a solid background in data management and database design, I have a proven experience of creating data visualizations and utilizing econometric and machine learning models. As a hands-on problem-solver, I am accustomed to working independently and collaborating with teams to deliver technical support .

### Technical Skills

Python:	●●●○○	R:	●●●●○	Julia:	●●○○○	SQL:	●●●●○
AZURE:	●●○○○	Econometric:	●●●●○	Data Viz.:	●●●●●	Spatial data:	●●●●●
PostgreSQL:	●●●○○	SQLite:	●●●○○	DuckDB:	●●●●○	MongoDB:	●●○○○
PowerPoint:	●●●●●	Excel:	●●●●○	Outlook:	●●●●○	Word:	●●●●●
Visio:	●●●●○	PowerBI:	●●○○○	Tableau:	●●●○○	Git:	●●●●○

### Soft Skills

Team work:	●●●○○	Self-organised	●●●○○	Project management	●●●●○
Accounting:	●●○○○	Quality control:	●●●●○	Visual communication:	●●●●●

### Experience

<b>DATA ANALYTIC ENGINEERING</b> <i>Self-Employed   Apex-Heat – Startup</i>	Jan 2025 – Present <i>Part-time – Espoo, Finland</i>
<ul style="list-style-type: none"><li>Resolving <b>technical debt</b>.</li><li>Consulting the implementation of <b>Generative AI</b>.</li><li>Migrating from <b>Pandas</b> to <b>Polars</b> to improve the efficiency and calculation time.</li><li>Improving the design pattern, and <b>writing documentations</b>.</li><li>Adjusting an improving data processing test coverage and <b>testing</b> methods.</li><li><b>Optimising</b> the SQL queries to improve response time.</li></ul>	
<b>Ph.D. Candidate</b> <i>Aalto University</i>	Sep 2020 – Dec 2024 <i>Full-time – Espoo, Finland</i>
<ul style="list-style-type: none"><li>Applying Econometric, ML and data analysis for <b>quantitative research</b>.</li><li>Designed and deployed database in <b>PostgreSQL</b> and <b>DuckDB</b> data lake for research data in our team.</li><li>Preparing and updating <b>visualisations</b> for lecture and presentation.</li><li>Performing <b>time-to-event</b> statistical modelling for my research using parametric, semi-parametric and non-parametric models. These models include longitudinal data, repeating event, multi-state and joint models.</li><li>Experienced in preparing datasets for event history analysis.</li><li>Deploying and maintaining <b>AZURE functions</b> to store real estate data for research. Scrapping websites for property advertisements.</li><li>Self-taught programming skills, and further obtained formal education in data science.</li></ul>	
<b>Data Analytics Engineer</b> <i>Qissa kaupunkisuunnitteluanalytiikka Oy – Startup</i>	Sep 2020 – Dec 2024 <i>Part-time – Espoo, Finland</i>
<ul style="list-style-type: none"><li>Designing data pipeline to gather data form REST APIs, cleaning, Geo-coding and storing in accordance to the specifications requested by clients</li><li>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 network analysis.</li></ul>	

- Extracted, processed and served census data from US, Denmark, Sweden and Finland for calculating CO<sub>2</sub> emission from commuting.

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### 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.
- Programming and producing dynamic 3D model of the cities using ESRI CityEngine

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### GIS Operator

University of Tehran

Aug 2015 – May 2016  
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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### Chief Operating Officer

Airsa Dorsa Industries

Aug 2011 – Aug 2018  
Full-time, Karaj, Iran

- Accounting, cost calculation, financial analysis, human resources and BI
- Provided in house **graphic design**, CAD and technical solutions for clients.
- Negotiating with the clients regarding their designs, pricing and production.
- Managing timelines of production, maintenance and order delivery.
- Admin duties, supervision duties, high-frequency welding, silk screen printing.

## Education

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### 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

## Machine Learning | Statistical models | Econometrics

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<b>Uni-variate time-series:</b> ●●●○○	<b>VAR time-series:</b> ●●●○○	<b>Co-integration time-series:</b> ●●○○○
<b>multi-variate time-series:</b> ●●●○○	<b>OLS:</b> ●●●●●	<b>IV-OLS:</b> ●●●●○
<b>Panel data:</b> ●●●●○	<b>Generalised Method of Moments:</b> ●●●●○	<b>Generalised linear models:</b> ●●○○○
<b>longitudinal data:</b> ●●●●○	<b>Survival/time-to-event:</b> ●●●●●	<b>Additive hazard models:</b> ●●●●●

## Volunteer Work

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