Babäk Firoozi Fooladi

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

Location: Espoo, Uusimaa, Finland
Email: contact@babakfi.foo | Mobile: +358 46 521 2019

Data Analytics Engineer | Data visualisation | Data Scientist

Adaptable problem-solver with a solid foundation in spatial data, econometrics, and data science. Service-minded and communicator aiming to produce solutions that tailored for the clients, stakeholders and collaborators. Skilled in developing analytical solutions and insights, with hands-on experience in data processing, visualization, databases, and data pipelines. Eager to leverage a self-driven attitude and commitment to quality to take ownership of projects and contribute to team goals.

Technical Skills

Skill	Level	Skill	Level	Skill	Level	Skill	Level
Python:	●●●○○	R:	●●●●○	Julia:	●●○○○	SQL:	●●●○○
AZURE:	●●○○○	Econometric:	●●●●○	Data Viz.:	●●●●●	Spatial data:	●●●●●
PostgreSQL:	●●●○○	SQLite:	●●●○○	DuckDB:	●●●●○	MongoDB:	●●○○○
Data Analysis:	●●●●○	ArcGIS:	●●●○○	QGIS:	●●●●○	Excel:	●●●●○
PowerPoint:	●●●●○	RAG:	●●○○○	CAG:	●●●○○	Git:	●●●●○

Experience

DATA ANALYTIC ENGINEERING
Self-Employed | Apex-Heat – Startup

Jan 2025 – Present
Part-time – Espoo, Finland

- 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
Aalto University

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

- Processing HTML and PDF files and implementing **RAG** to extract structured data from the land use plan documents.
- Applying Econometric, ML and data analysis for **quantitative research**.
- Designed and deployed database in PostgreSQL and DuckDB data lake for research data in our team.
- Preparing and updating visualisations for lecture and presentation.
- Performing **time-to-event** 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.
- Experienced in preparing datasets for event history analysis.
- Deploying and maintaining **AZURE functions** to store real estate data for research. Scrapping websites for property advertisements.
- Self-taught programming skills, and further obtained formal education in data science.

Data Analytics Engineer
Qissa kaupunkisuunnitteluanalytiikka Oy – Startup

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

- Designing data pipeline to gather data form 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 network analysis.

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

---

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

---

Chief Operating Officer   Aug 2011 – Aug 2018
Airsa Dorsa Industries   *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.
- Admin duties, supervision duties, high-frequency welding, silk screen printing.

Education

Aalto University   Espoo, Finland
Doctor of Philosophy in Technology, Real Estate Economics   *Sep 2020 - Present*

Aalto University   Espoo, Finland
MSc. (Tech.) Urban Studies and Planning in Real Estate Economics   *Sep 2018 - Jul 2020*

Aalto University   Espoo, Finland
BA. Town Planning   *Sep 2011 - Jun 2015*

Machine Learning | Statistical models | Econometrics

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: ●●○○○
longitudinal data: ●●●●○	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