BABÄK Firoozi Fooladi

Data Analytics Engineer

A versatile and proactive problem solver with a strong ability to quickly adapt and learn new skills. With a growing expertise in analytics, data processing, and visualization, I excel at creating data piplines, analytics, visualizations to provide solutions at any levels of complexity. My core strength lies in my ability to acquire new knowledge rapidly, adabt to workflow and collaborate with others.

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📍 Espoo, Uusimaa, Finland

SKILLS

Technical Skills

R	Postgres	Econometrics
Python	DuckDB	Biostatistics
Julia	MangoDB	Machine Learning
SQL	SQLite	Spatial Analysis

Soft Skills

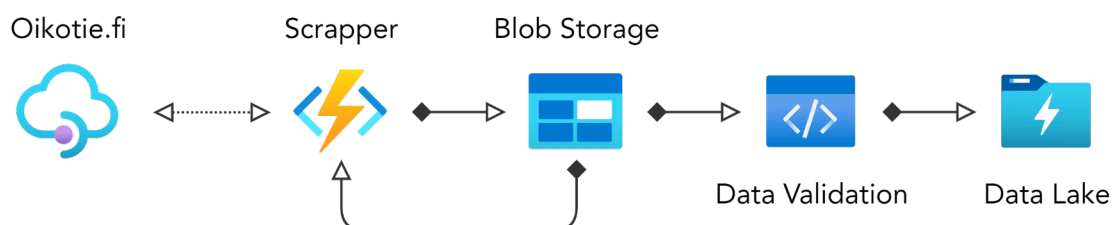|	
Self-management	Data Visualisation
Teamwork	Data Transformation
Communication	Data Validation
Graphic Design	

EXPERIENCE

Doctoral Researcher | Aalto University | Sep 2020 - Dec 2024

I developed coding, data processing, and analysis skills using R, Python, and Julia, with responsibilities for cleaning and efficiently storing data. I also gained knowledge in statistical and data analysis.

Oikotie Pipeline:

For this project, I deployed an Azure function to scrape advertisement data from the Oikoti website API. Each day at 4:00 AM, the function scrapes ad IDs posted within the last 24 hours and stores them in Azure Blob Storage. It then retrieves ad IDs from 90 days ago to capture review statistics for those ads. The data is processed to remove personal information and ensure GDPR compliance, then flattened into CSV format and stored in Blob Storage. Semi-annually (or upon request), the data is downloaded and transformed into a semi-structured table with key columns for fixed data and JSON columns for flexible information as Parquet files in a datalake.

Oikotie.fi → Scrapper → Blob Storage → Data Validation → Data Lake

NLS Pipeline:

National Land Survey of Finland provides us with XML data from their relational database. However, due to removing personal data, relational database is no longer applicable. Therefore I redesigned the data model to semi-structured database. The XMLs are converted to tables with fixed non-Null columns, and JSON columns with schema-less data. Data is stored in Parquet format in the data lake

Data analytics Engineer | Qissa kaupunkisuunnitteluanalytiikka Oy | Sep 2020 - Present

I used my Spatial data science skill into play to produce dashboards and functions for the startup. I provided data preparation infrastructure for one of the client so they can perform CO_2 emission estimation in U.S., Norway, Sweden and Finland. Dashboards contained maps and 3D visualisations.

Public Transit Service area:

In this project, the client's address and access time are used to retrieve coordinates from the HERE API. My spatial analysis algorithm identifies nearby public transportation stations, minimizing HSL API calls to maintain both accuracy and efficiency. Service areas are then generated via the HERE API and visualized with Streamlit.

Address → Location → Stations Access time → Service Area → Visualisation

Planning assistant | WSP Finland Oy | Nov 2018 - Jun 2021

At WSP Consulting, I adapted to Finnish work culture while producing spatial analyses, visualizations, and 3D city models. I designed and conducted a pedestrian route choice forecast to estimate changes in pedestrian flow after project implementations. Additionally, I supported other units with spatial data preparation and cartography. At peak workload, I managed seven projects across various units. This role highlighted the need for a structured approach to project data that accommodates diverse datasets and documents, usable by non-data professionals, which inspired my path toward data engineering.

EDUCATION

Aalto University
Sep 2020 - Present

Doctoral Candidate in Real estate Economics
Land policies, Housing Market, Land market, Econometrics

Aalto University
Sep 2018 - Jul 2020

Masters of Urban Studies and Planning in Real estate
GPA: 4.1 / 5 - Graduated with Honors

University of Tehran
Sep 2011 - Jun 2015

Bachelors of Town planning
GPA: 16.67 / 20 - Academic Excelence

OTHER SKILLS

Painting	Graphic design
Music	Accounting
Economics	3D design