Mehmet **Kutluay**

LEAD DATA SCIENTIST

Rotterdam - The Netherlands

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Skills

DATA SCIENCE

- Network Analytics, Anomaly Detection, Spark, Time Series Forecasting, Cross-Sectional Prediction, Data Visualization, ETL, Remote Sensing

SYNTAX AND PROGRAMMING

- Statistics/Data Science: Python, R, SQL, Matlab
- Engineering: Bash, Docker, Terraform
- Other: Markdown, Microsoft Office

LANGUAGES

- Turkish: Native
- English: Fluent, Business Proficient
- Dutch: Fluent

Experience

Knab
August 2023 - July 2025

LEAD DATA SCIENTIST *Amsterdam*

- Initially joined as senior data scientist, worked as lead data scientist from March 2024.
- Lead a team of 6-7 data scientists, and also worked on model development and productionization.
- Deployed first machine learning models for the bank, mainly within the KYC sphere. Set up and developed the governance and technical framework for deploying more models. This was in collaboration with many parties (data engineering, data governance, business stakeholders and model risk management).
- Was responsible for moulding and executing the ML / AI strategy of Knab, as well as mentoring other data scientists and leading by example.

Apollo Agriculture
May 2022 - April 2023

SENIOR DATA SCIENTIST *Amsterdam*

- In a small team (4-5 FTE's) of data scientists, working on multiple projects with different stakeholders. These are fraud detection, credit risk scoring and satellite image database creation. Infrastructure environment: AWS
- Launched and monitored multiple models in production - both batch processes and real-time applications
- Helping set up the way-of-working framework (Docker for local development, setting coding standards, creating/maintaining Python microservices etc.)
- Optimizing existing models by including extensive unit/integration tests, speeding up ETL with Dask

Transactie Monitoring Nederland
May 2021 - April 2022

SENIOR DATA SCIENTIST *Purmerend*

- In multifunctional department, consisting of data scientists and anti-money laundering experts
- Creating/maintaining two Python packages for network analytics projects: 1. efficient network traversals and 2. detecting communities within networks. Infrastructure environment: AWS
- Main linking pin with engineering teams to ensure a workable framework for model development. Actively helping with setting up a feature store and spreading good Spark practices
- Integrating anti-money laundering experts actively into analytics projects
- Participating in high-level discussions on day-to-day and strategic topics

ING Bank N.V. - Financial Crime Analytics
Nov 2019 - April 2021

DATA SCIENTIST *Amsterdam*

- Part of a big team of 20-25 FTE's that develop models to detect money laundering and other illegal financial activities
- Creating two Python packages for: 1. streamlined unsupervised anomaly detection and 2. extracting network features from transaction data Infrastructure environment: in-house clusters.
- Main machine learning domain: unsupervised anomaly detection (e.g. isolation forest, k-means, outlier variational autoencoder)
- Communicating with other end-users of the Python packages for further development
- Running workshops on day-to-day usage of Docker
- Coaching trainees in data science work

ING Bank N.V. - Finance Analytics

Feb 2018 - Oct 2019

DATA SCIENTIST

Amsterdam

- Part of a small team of 2-3 FTE's that service employees in Group Finance through analytics projects. All projects are centered around time series data cleaning, wrangling and forecasting. Infrastructure environment: in-house clusters
- Created three R packages for time series forecasting, detecting/correcting anomalies and data exploration
- These R packages are open sourced and maintained by me. Click for tstools, tsclean, tsforecast
- Main machine learning domain: time series forecasting (ARIMA, LSTM, Kalman filter
- Deploying projects via local and docker solutions
- Running workshops and trainings in R, Python and statistics
- Coaching IT trainees in data science work
- Engaging stakeholders to help them become more data-savvy and understand what they can (and can't) do with data science

VU University Amsterdam

Sep 2014 - Aug 2018

PHD RESEARCHER IN ENVIRONMENTAL ECONOMICS

Amsterdam

- Thesis title: 'The Value of (Avoiding) Malaria' (link, graduated 2nd of May 2019)
- Supervisors: Roy Brouwer & Richard Tol
- Links to completed papers:
    - Valuing malaria morbidity (link)
    - Preference updating in public health risk valuation (link)
    - Public preferences and valuation of new malaria risk (link)
    - Attitudes towards public health spending (link)
- This was financed by an EU FP7 project: HELIX (link). This involved multidisciplinary collaboration with researchers from mathematics, physics, engineering, geography and sociology. I organized and executed a field survey in Mumbai, India between March - June 2016 as part of this project. Some analyses of the data from this survey can be found on my GitHub page.

VU University Amsterdam / Tinbergen Institute

Sep 2013 - Feb 2018

TEACHING ASSISTANT

Amsterdam

- Courses: Statistics/Econometrics (masters level - including coding in SPSS and R), Mathematics (masters level - linear algebra and advanced calculus)

Education

Amsterdam/Rotterdam, The Netherlands

Sep 2012 - Aug 2014

MPHIL IN ECONOMICS

Tinbergen Institute

- Specialization: Applied micro-econometrics
- Thesis: 'What explains willingness to pay for avoiding morbidity risk due to malaria? Results from a global meta-analysis' (later on became first chapter of PhD thesis)

Ankara, Turkey

Sep 2008 - Jun 2012

BSC IN ECONOMICS

Bilkent University

- Specialization: Academic (i.e. a special focus on applied mathematics and statistics)