Alperen **Karan**

Data Scientist · Mathematician

(+90) 505 702 22 81 | alperenkaran@gmail.com | alperenkaran.github.io | alperenkaran | alperenkaran | Alperen Karan

"Information is in the tiny patterns that no human eye can see."

Summary

Data Scientist at an international 10-minute grocery delivery service company Getir. Proficient in Python and SQL. Experienced in using a wide range of machine learning models and sharing the results with other departments via visualization tools such as Tableau. Mathematician with a deep understanding of the theory behind the learning algorithms. Particularly interested in anomaly detection and fraud prevention. Capable of turning vague problems into concrete business applications. Enjoys teamwork, and always tries keep a positive mood in the team.

Work Experience

Getir — *İstanbul, Turkey*

Data Scientist — *Sep. 2021 - Present*

- Building end-to-end predictive machine learning models for various projects including but not limited to customer segmentation, demand forecasting, propensity modeling and churn prediction.
- Writing complex SQL queries for data analysis.
- Creating Tableau workbooks to track the results of predictive models.
- Creating python cron jobs that periodically insert some tables to the database.

Istanbul Technical University — *İstanbul, Turkey*

Research Assistant — *Dec. 2013 - Sep. 2021*

- Leading problem sessions on several mathematics courses such as *Intro. to Programming (MATLAB)* and *Calculus*.
- Proctoring, organizing and grading exams, holding office hours for students, and so on.

Technical Skills

Machine Learning	Hands-on experience with Python libraries such as numpy, pandas, matplotlib, scikit-learn, xgboost, imblearn, keras.
Programming	Python, (Postgre)SQL, LaTeX.
Software	Jupyter, Tableau, PyCharm, DataGrip, SPSS.
Other	AWS (Redshift, S3, Step Functions), Git.

Education

PhD in Mathematical Engineering, Istanbul Technical University — *Istanbul, Turkey*

Thesis Title: *Time Series Classification via Topological Data Analysis* — *Expected: Apr. 2022*

MA in Psychology, Bogazici University — *Istanbul, Turkey*

Thesis Title: *In Search of Tonal Grounds for Short Term Melody Recognition* — *2019*

MS in Mathematics, Bogazici University — *Istanbul, Turkey*

Thesis Title: *Topologies on Families of Closed Subsets* — *2015*

BS in Mathematics, Bogazici University — *Istanbul, Turkey*

Graduation Project: *Proofs of Turan's Theorem* — *2013*

Publications

1. Karan, A., & Kaygun, A. (2021). Time Series Classification via Topological Data Analysis. *Expert Systems with Applications, 115326.*
2. Karan, A., & Mungan, E. (2018). In Further Search of Tonal Grounds in Short Term Memory of Melodies. In R. Parncutt & A. Schiavio (Ed.), *Proceedings of the Fifteenth International Conference on Music Perception and Cognition (p. 237-243), Karl-Franzens Universitaet Graz.*
3. Gillam, W. D., & Karan, A. (2017). The Hausdorff topology as a moduli space. *Topology and its Applications, 232*, 102-111.