



# OMER KOC

✉ koc.o@northeastern.edu 🌐 omerskoc.com  linkedin.com/in/omerskoc  github.com/omerskoc

## Summary

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Data Scientist pursuing a Master's in Data Science with expertise in Python, SQL, R, and AWS. Skilled in machine learning, deep learning, and statistical analysis, focusing on predictive modeling, visualization, and scalable data solutions. Experienced in analyzing large datasets and delivering actionable insights to enhance decision-making.

## Education

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**Northeastern University** **Jan. 2023 – Jun. 2025 (Expected)**  
M.Sc. in Data Science. GPA: 3.95 Boston, MA  
Relevant Coursework: Cloud Computing, Unsupervised/Supervised Machine Learning, Database MS

**Istanbul Technical University** **Sep. 2016 – Jun. 2021**  
B.Sc. in Industrial Engineering. High Honor List. GPA: 3.72 Istanbul, Turkey

## Selected Projects

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**Cloud Architecture on AWS** | *Cloud Computing, AWS*  **Jun. 2024**

- Designed a cloud-based architecture for a hypothetical café business, ensuring scalability, reliability, and optimization.
- Deployed infrastructure on AWS, leveraging services such as EC2, S3, RDS, and CloudFormation for automation.
- Monitored system performance and optimized costs using AWS Cost Management and CloudWatch.

**Design & Implement a Relational Database: Bird Strike** | *R, MySQL*  **May 2023**

- Developed a relational database in MySQL for bird strike incidents, incorporating advanced data manipulation with R.
- Populated the database using a batch processing method, markedly optimizing the speed by 80% over standard methods

**Intraday Electricity Market Price Forecast Using Machine Learning** | *Python, Machine Learning*  **Jun. 2021**

- Achieved a \$1.5 MAE using a CNN-LSTM hybrid model, leveraging deep learning techniques to outperform Bi-LSTM and GRU models, demonstrating expertise in time-series analysis.
- Used Facebook's Prophet to preprocess over 50 features, enhancing model accuracy with advanced forecasting techniques.

## Experience

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**MATREU** **Sep. 2024 – Dec. 2024**  
*Data Analyst* Austin, TX

- Automated data workflows and reporting, increasing efficiency and ensuring timely delivery of insights to the team.
- Analyzed over 50 product performance metrics, identifying opportunities to improve sales and optimize product listings, leading to a 10% increase in monthly revenue.

**Khoury College of Computer Sciences** **Dec. 2023 – Jun. 2024**  
*Graduate Teaching Assistant* Boston, MA

- Held weekly office hours to provide support on SQL, Python, Data Modeling, and tools such as MongoDB and Spark.
- Evaluated student code for accuracy and adherence to requirements and assigned grades for projects and exams.

**Turkcell** **Dec. 2020 – Jan. 2022**  
*Data Analyst* Istanbul, Turkey

- Designed a real-time dashboard and budget forecast model, streamlining SME and Key Account performance metrics across departments and delivering weekly data reports to McKinsey, improving forecasting accuracy by 25%.
- Automated data extraction processes using SQL and Python, reducing manual effort by 30% across reporting tasks.

**Microsoft** **Dec. 2020 – Jun. 2021**  
*IMAGINE Fellow / Student Ambassador* Istanbul, Turkey

- Designed and implemented 5 Azure-based projects leveraging Cognitive Services APIs to create real-world applications.
- Conducted hands-on workshops on Azure and Machine Learning, training 90+ students on deploying Cognitive Services

## Leadership / Extracurricular

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**New England Turkish Student Association (NETSA)** **Sep. 2023 – Present**  
*Vice President*

- Increased the organization's treasury by 45% compared to the previous year through strategic grant and sponsorships.
- Facilitated networking events, strengthening the connection between Turkish and American student communities.

## Technical Skills

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**Languages & Tools:** Python, R, SQL, C++, Amazon Web Services (AWS), Microsoft Azure, MS Office, Tableau  
**Expertise:** Data Analysis, Statistics, Algorithms, Machine learning, Deep Learning, Relational Databases