

Muhammed İkbâl Yılmaz

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Education

B.Sc. in Econometrics

2017 – 2024

Ankara Hacı Bayram Veli University, Ankara

Coursework: regression analysis, time series analysis, financial econometrics, stochastic processes, statistical modeling, linear algebra, probability and statistics.

Research

TÜBİTAK 2209-A Undergraduate Research Project

2023 – 2024

Brand preference and brand loyalty. Principal investigator.

Survey design and data collection ($N = 407$); normality checks, Spearman correlations, χ^2 tests of independence, ANOVA with Tukey's HSD.

Classification of Brand Perception Using Random Forest: Brand Preference, Brand Loyalty, and Brand Trust

International Data Science and Statistics Congress (IDSSC), October 2024. Oral presentation, with Ö. Yıldız and Ş. Gökmen.

Marka Tercihini Etkileyen Faktörler: Ankara Hacı Bayram Veli Üniversitesi Ekonometri ve İktisat Bölümü Lisans Programı Öğrencileri Üzerine Bir Uygulama

V. International Applied Statistics Congress (UYIK), 2024. Proceedings paper, with Ö. Yıldız and Ş. Gökmen.

Selected projects

Code, figures and short project notes at github.com/mikbalyilmaz.

- **Return dynamics of ASELSAN.** Same-day and next-day relation of a stock's daily return with the market, the exchange rate, global risk and sovereign risk.
- **Unit roots in Turkish macro data.** Order of integration of card spending, a loan rate and consumer prices under calendar effects, lag selection and a structural break.
- **Central limit theorem exercises.** Where the law of large numbers and the CLT hold for sixteen distributions, and how fast convergence is, using exact distances and simulation.
- **Numerical computing.** Rounding error of floating-point summation; period and quality of linear congruential generators (R).
- **OLS and random forest.** Gauss–Markov diagnostics for a macro-financial regression compared with a random forest model.

Skills

Software	Python (NumPy, pandas, statsmodels, SciPy, scikit-learn), R, Stata, EViews, SPSS, MATLAB, SQL, L ^A T _E X
Languages	Turkish, English