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Kemal Gunay

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EDUCATION

PhD Communication Science, Institute of Social Sciences, Istanbul University **2018 — 2022**
Thesis: "Climate Change Communication and Public Relations: Comparison of Ministries and NGOs' Public Relations Activities on Twitter" - Examined textual data with rule-based and unsupervised machine learning algorithms

Master Corporate Communications, Institute of Social Sciences, Istanbul University **2015 — 2018**
Thesis: "Content-based communication in social media: A research on universities"

Bachelor Public Relations and Publicity, BA, Communication Faculty, Istanbul University **2003 — 2007**

ACADEMIC AND WORK EXPERIENCE

Istanbul University, Communication Faculty, New Media Researcher (Scholar), Istanbul **2019 — 2022**
- Field of Study: Digital Media, Environmental Communication and Communication Sciences, Data Science, Political Discourse
- Analysis Methods: Text mining & NLP; Topic Modelling (LDA, STM), Social Network Analysis, Text Clustering
- Organizing events such as seminars, conferences, and workshops.

Data Science & ML School, Bootcamp Participant, Istanbul **2021 — 2022**
- Hands-on-experience via projects; CRM Analytics; Recommendation Systems; Measurement, Regression, Classification and Time Series Problems; NLP, MS SQL, Big Data and Production Level Data Science.

Istanbul Gelisim University, Communication Faculty, Research Assistant, Istanbul **2018 — 2019**
- Field of Study: Digital Media and Communication Sciences, NLP & Text Mining, Data Visualization
- Academic research through Python, RStudio, SPSS, NVivo Software
- Organizing events such as seminars, conferences, and workshops
- Corporate website management
- Performing PR activities such as news, interviews, press releases

TEACHING

PySpark ML Bank Customer Churn Prediction Project, Miuul **2021**
- A workshop where I explained Spark installation and functions. GitHub

Teacher Bachelor course "Visualization in R", Gelisim University **2019**
- Based on material by Garrett Grolemund, Hadley Wickham: R For Data Science

SKILLS

Languages	Turkish (native), English (fluent), Spanish (A2), French (A2), German (A2)
Statistical Software	R, SPSS
Programming	Python and JavaScript (data retrieval, text analysis and NLP, building web applications)
Databases	SQL, Spark
Markup languages	LaTeX, HTML, CSS
System administration	Linux, Docker, Apache Kafka, cloud computing, virtual machines

DATA SCIENCE & ML PROJECTS

Geolocation Algorithm | From Text to Location **2022**

- I was required to create an algorithm that takes as input a pdf file corresponding to a research publication and outputs a list of all geographical locations mentioned in the publication. For each geographical location, the algorithm will have to additionally identify the country that the location belongs to and return a latitude- longitude pair corresponding to the centroid of the respective country. (GitHub)

Dialogic Communication Principles – Auto Content Analysis **2022**

- Rule-based filters were made from the data obtained from the Twitter application and new variables were revealed. The approach put forward in the study makes it possible to conduct content analysis effectively for environments with fast data flows such as Twitter.

Environmental | Climate Change Communications Classifier **2022**

- Clustering and labeling were performed with the LDA method. Afterwards, a new classifier model was created by testing SVM, Logistic Regression, Random Forest, and other algorithms.

Social Network Analysis - Community Detection R **2021**

- Social network analysis (SNA) is the process of investigating social structures using networks and graph theory. It characterizes networked structures in terms of nodes (individual actors, people, or things within the network) and the ties, edges, or links (relationships or interactions) that connect them.

Comprehensive Guide to Build Recommendation Engine **2021**

- In this notebook, It was explained three types of recommender systems: (1) Association rule learning (ARL), (2) content-based, and (3) collaborative filtering approaches. It will be explained how to build a recommender system with these three methods.

Please Visit My Academic Website or GitHub for More Projects

2019

EXTERNAL ACTIVITIES & SERVICE TO PROFESSION

Other:

- Blogpost: One-Way ANOVA Test with RStudio
- Blogpost: Getting Started with Image Preprocessing in R
- Blogpost: Spotify User Profile Analysis With Spotifyr — RStudio
- Blogpost: Customer Segmentation: The Key to Finding The Right Customers
- Blogpost: Python Comprehensions For Beginners

PEER-REVIEWED PUBLICATIONS

Gunay, **K.**, Gucdemir, Y. (2022). Topic Modeling Analysis of NGO's Twitter Postings Between 2020-2021 in Turkey Within The Context of Climate Change Communication

Mengu, S., Mengu, M., **Gunay, K.** (2021). Value-based communication during COVID-19 pandemic: a study on the twitter messages of Turkish Ministry of Health

Gucdemir, Y., Mengu, S., **Gunay, K.,** (2020). An Investigation of Candidate Leaders' Tweet Campaigns Prior to the Istanbul Metropolitan Municipal Elections Using Big Data Text Mining

BOOK CHAPTERS, AND PRESENTATIONS

Gucdemir, Y., **Gunay, K.,** *Is The Internet Of Things Transforming A Surveillance Tool?* Istanbul University Press, 2021

Mengu, S., Mengu, M., **Gunay, K.** (2021). 19th Annual International Conference on Communication and Mass Media, 10-11 May 2021, Athens, Greece

Gunay, K. Gucdemir, Y., CTC 2021 3rd Communication and Technology Congress 12-14 April 2021, Istanbul

REFERENCES

Istanbul University, Communication Faculty, Istanbul

- Prof. Yesim Gucdemir, Department of Public Relations, +905324032507, gucdemir@istanbul.edu.tr

Istanbul University, Communication Faculty, Istanbul

- Prof. Seda Mengu, Department of Public Relations, +905337084380, seda.mengu@istanbul.edu.tr