Makbule Gulcin Ozsoy

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RESEARCH INTERESTS EDUCATION Recommender systems, Machine learning, Information retrieval

Middle East Technical University (METU), Ankara, TURKEY

- PhD, Computer Engineering, June 2016, GPA: 4.00/4.00
 - Dissertation Title: A Multi-Objective Recommendation System
- Visiting Student, Computer Science, October 2014 September 2015
 - University of Calgary, Calgary-Alberta, CANADA

Middle East Technical University (METU), Ankara, TURKEY

- MSc, Computer Engineering, February 2011, GPA:3.50/4.00
 - Dissertation Title: Text Summarization Using Latent Semantic Analysis

Middle East Technical University (METU), Ankara, TURKEY

- BSc, Computer Engineering, June 2008, GPA: 3.00/4.00
 - Senior Year Project: RadioRead Text mining on Turkish medical radiology reports

Work Experience

Insight Centre for Data Analytics, University College Dublin (UCD), Dublin, IRELAND

• Postdoctoral Researcher

- February 2019 present
- Recommender Systems (Python): Developing methods for making explainable recommendations in heterogeneous information networks, Designing and developing methods for reinforcement learning-based recommender systems

Unscrambl LLC, Ankara, TURKEY

• Data Scientist

- October 2016 February 2019
- Natural Language Processing (Python): Developed modules for Named Entity Recognition and intent classification for Turkish and English texts
- Machine Learning (Python): Designed and developed data pre-processing, data analysis, model training and evaluation modules, Performed analysis on batch data to extract insights and to solve variety of business problems

T2 Yazilim, Ankara, TURKEY

• Software Engineer

- June 2012 October 2016
- GUI Development (Java): GUI development for a desktop application using Java Swing
- Natural Language Processing (Java): Sentiment analysis on short unstructured documents,
 Designed and developed natural language processing modules of the project, Applied several different machine learning techniques
- Computer Networks (C++): Inter-domain routing algorithms on MANETs (Mobile Ad-Hoc Networks), Performance-enhancing proxy for IP optimization on radio and satellite links

${\bf TUBITAK~(Scientific~and~Technological~Research~Council~of~Turkey),~Ankara,~TURKEY}$

Researcher

- September 2009 June 2012
- Computer Networks (C++): High Frequency radio communications, Designed and developed layered network protocol and clients for Stanag 5066 protocol, Routing algorithms in ad-hoc networks

HAVELSAN, Ankara, TURKEY

• Software Engineer

- June 2008 September 2009
- Image processing (C++): Moving object tracker and object classification of real-time images,
 Remote sensing and satellite image processing

PUBLICATIONS

- Makbule Gulcin Ozsoy. Utilizing FastText for Venue Recommendation. arXiv preprint arXiv: 2005.12982 (2020)
- Bichen Shi, Makbule Gulcin Ozsoy, Neil Hurley, Barry Smyth, Elias Z. Tragos, James Geraci, Aonghus Lawlor. PyRecGym: A Reinforcement Learning Gym for Recommender Systems. Rec-Sys 2019: 491–495 (2019)
- Makbule Gulcin Ozsoy, Faruk Polat, Reda Alhajj. Effective Induction of Gene Regulatory Networks Using a Novel Recommendation Method. International Journal of Data Mining and Bioinformatics 22(2): 91-112 (2019)
- Makbule Gulcin Ozsoy, Tansel Ozyer, Faruk Polat, Reda Alhaj. Realizing Drug Repositioning by Adapting a Recommendation System to Handle the Process. BMC Bioinformatics 19(1): 136 (2018)
- Makbule Gulcin Ozsoy. From Word Embeddings to Item Recommendation. arXiv preprint arXiv: 1601.01356 (2016)
- Makbule Gulcin Ozsoy, Faruk Polat, Reda Alhajj. Time Preference-aware Dynamic Recommendation Enhanced with Location, Social Network and Temporal Information. ASONAM 2016: 909-916 (2016)
- Makbule Gulcin Ozsoy, Faruk Polat, Reda Alhajj. Making Recommendations by Integrating Information from Multiple Social Networks. Applied Intelligence 45(4): 1047-1065 (2016)
- Makbule Gulcin Ozsoy, Faruk Polat, Reda Alhajj. Modeling Individuals and Making Recommendations Using Multiple Social Networks. ASONAM 2015: 1184-1191 (2015)
- Makbule Gulcin Ozsoy, Faruk Polat, Reda Alhajj. Inference of Gene Regulatory Networks via Multiple Data Sources and A Recommendation Method. BIBM 2015: 661-664 (2015)
- Makbule Gulcin Ozsoy, Kezban Dilek Onal, Ismail Sengor Altingovde. Result Diversification for Tweet Search. WISE 2014: 78-89 (2014)
- Makbule Gulcin Ozsoy, Faruk Polat, Reda Alhajj. Multi-Objective Optimization Based Location and Social Network Aware Recommendation. COLLABORATECOM 2014: 233-242 (2014)
- Makbule Gulcin Ozsoy, Ruket Cakici. Contrastive Max-Sum Opinion Summarization. AIRS 2014: 256-267 (2014)
- Makbule Gulcin Ozsoy, Faruk Polat. Trust Based Recommendation Systems. MASSN 2013, Held in conjunction with ASONAM 2013: 1267-1274 (2013)
- Makbule Gulcin Ozsoy, Ferda Nur Alpaslan, Ilyas Cicekli. Text Summarization using Latent Semantic Analysis. Journal of Information Science 37(4): 405-417 (2011)
- Makbule Gulcin Ozsoy, Ilyas Cicekli, Ferda Nur Alpaslan. Text Summarization of Turkish Texts using Latent Semantic Analysis. COLING 2010: 869-876. (2010)

Honors and Awards

- 2014 2015 Recipient of the TUBITAK International Doctoral Research Fellowship Program
- 2013 Won the TUBITAK BIDEB 2224 August grant to attend ASONAM'2013
- 2012 Finalist in Google Anita Borg Scholarship (EMEA)
- 2010 Won the AFNLP-CIPS Scholarship grant to attend COLING'2010
- 2010 Won the TUBITAK BIDEB 2224 July grant to attend COLING'2010
- 2008 Graduated in Deans Honor List from the Middle East Technical University
- 2003 Ranked in the first 0.05% among 1.5 million students in University Entrance Exam (OSS)

SKILLS Programming Languages: Python, Java, C++, C, SQL

Data Anlaysis and Machine Learning Tools: Pandas, Numpy, Scikit-learn, Jupyter Notebook, Chain-

erRL, Tensorflow, Wandb, spaCy, Rasa NLU, R, Apache Lucene, Weka, Mallet, LingPipe

Other Scientific Tools: OMNET++, Matlab, Apache Spark, OSGI

Software Engineering Tools: IntelliJ IDEA, Eclipse, Git, SVN, Atlassian Platforms, IBM Rational

 ${\bf Platforms}$

Operating Systems: Unix/Linux, Windows

LANGUAGES Turkish: Native

 ${\bf English:\ Fluent}$