Asuman Cagla Acun Sener
Ph.D. Candidate

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Research Papers: https://www.researchgate.net/profile/Asuman_Acun_Sener/research

TECHNICAL SKILLS
Languages: Python, R, Java, C, C++, SQL, PL/SQL
Software Packages/Tools/Frameworks: Pytorch, Scikit-learn**,** Anaconda, Eclipse, Intellij IDEA, Oracle, MySQL, PostgreSQL, SQL server, MinGW, Visual Paradigm, WEKA, Gephi, Spring, PrimeFaces, Webflow, Hibernate, JasperReport

RESEARCH

I am a Ph.D. candidate at the Knowledge Discovery and Web Mining Lab with Dr. Olfa Nasraoui. Currently, I am doing research in explainability in machine learning to make black box machine learning algorithms more transparent and trustworthy by developing a novel model-agnostic framework to explain black-box machine learning algorithms.

My master's thesis was a data science pipeline for educational data: a case study using learning catalytics in the active learning classroom. In this study, I used a combination of data mining and classical statistical techniques to reveal the trends and peculiarities in the data, without having a specific question or topic to investigate. The data science pipeline which we present has four major stages: data preprocessing, exploratory factor analysis, visualization, and feature engineering. Our study revealed some trends and clusters within and across course units. Analysis results show the differences and similarities within the course units and help track learner behavior.

My undergrad senior project is an implementation of social network analysis method on the scientific literature. The project involves implementing social network analysis module to the kaynakca.info, which is a web-based software product for managing reference system and making a bibliometric analysis. This module is open to use for all researchers.

WORK EXPERIENCE

Graduate Student Assistant
REACH – University of Louisville – Louisville, KY - Feb 2018 to Present

Responsibilities: Managing the Computer Resource Center, hiring, training, and evaluating tutoring staff, resolving computer hardware/software problems, scheduling the tutors working hours, liaising with designated course faculty, conducting test review sessions, presenting workshops that engage students, providing tutoring to students on an as needed basis, ensuring data is logged correctly into the usage tracking system, and promoting REACH services.

Software Developer
INNOVA IT Solutions - Ankara, TR - May 2013 to August 2014

Project: I-HOPE is a web-based legal automation system manages all the processes of all kinds of execution and litigation files and provides the institutions with a total solution that facilitates the collection of receivables and reduces legal expenses.

Developed new features to the system as requirements updated and fixed bugs the current system. Worked with an Agile, Scrum methodology to ensure delivery of high quality work with every monthly

iteration. Involved in every step of software development life cycle; design, development, testing and implementation. Wrote many SQL scripts and designed user-friendly interfaces. Utilized such as in the project are Java, Spring, Hibernate, PL SQL.

Intern
Research Institute for Software Development - Ankara, TR - June 2011 to August 2011
Joined a project to develop a mobile application that works synchronously with the web-based application to take and save photos with their coordinate information into the system. PrimeFaces framework is used in both web based and mobile application which supports various mobile platforms.

National Academic Network and Information Center - Ankara, TR - July 2012 to August 2012
Joined a project and worked on reporting and analyzing national academic networks. I wrote SQL scripts, and fixed the errors on current system.

EDUCATION

Ph.D. in Computer Science and Engineering
University of Louisville - Louisville, KY
Expected graduation in August 2022

M.S. in Computer Science and Engineering
University of Louisville - Louisville, KY
August 2017

Certification in English as a Second Language Department
University of Texas at Austin, Austin, TX
August 2015

B.S. in Computer Engineering
Hacettepe University, Ankara, Turkey
May 2013

AWARDS

CSE Arthur M. Riehl Award
May 2021
Given by J. B. Speed School of Engineering, University of Louisville. The award is given to a graduate student with excellent academic performance and contributions to the department activities.

Best Poster Presentation Award
February 2019
Given by Graduate Student Regional Research Conference (GSRRC) Committee

Master's Study Abroad Scholarship
August 2014
Given by Ministry of National Education, Turkey (tuition & fees + monthly stipend)

Senior Project Grant
September 2012
Given by The Scientific and Technological Research Council of Turkey, TUBITAK.