

# MERT KOŞAN

PH.D. STUDENT

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## WORK EXPERIENCE

### ➤ Ph.D. Intern Data Scientist - Visa Research

*Fraud Detection and Profiling*

📅 June 2020 – August 2020

📍 Austin, USA

- Developed a framework that generates profiling and recommend optimized strategies for near-real time unsupervised fraud detection on graphs.
- The proposed framework profiles the fraud automatically and accurately less than a second with a small number of transactions.

### ➤ Part-time Software Engineer - Proente

*Industry 4.0 Solutions at Factories*

📅 June 2017 – August 2018

📍 Istanbul, Turkey

- Developed a software application that generates reports and statistics on data collected by Prowmes.

### ➤ Intern Software Engineer - Robert Bosch GmbH

*Automotive Industry*

📅 June 2016 – August 2016

📍 Plochingen, Germany

- Designed a software application generating workshop reports on data collected by ESI [Tronic] 2.0.

## TEACHING EXPERIENCE

### ➤ Co-designer/Instructor - UC Santa Barbara

*Machine Learning Workshops | Python*

📅 May 2019 – June 2019

📍 Santa Barbara, USA

- Helped the students, from A Self-Organized PhD Students Exchange Program by Junior Nanotech Network, by teaching them machine learning methods for their projects.

### ➤ Teaching Assistant - UC Santa Barbara

*Data Structures & Algorithms | C++, Python*

📅 September 2018 – April 2019

📍 Santa Barbara, USA

- Discussion sections | Supervision of class project

### ➤ Co-designer/Instructor - Sabanci University

*Enhancement Workshops for Computer Science*

📅 January 2018 – June 2018

📍 Istanbul, Turkey

- Aimed for a quality enhancement of the students' knowledge about Computer Science.
- Created workshops and instructed Computer Science related courses (Git, Linux, Gcc, Python etc.).

### ➤ Teaching Assistant - Sabanci University

*Database Systems & Operating Systems | MySQL, C++, Java*

📅 February 2016 – May 2017

📍 Istanbul, Turkey

- Lab materials | Supervision of class project

## SKILLS & HOBBIES

- **Programming:** Python, C++, Java, Javascript, SQL
- **Tools:** Neo4j, Git, LaTeX, Office, MySQL
- **Languages:** Turkish (native), English (fluent), Spanish (beginner)
- **Personal:** Result-oriented | Responsible | Hardworking
- **Hobbies:** Football | Strategy Games | Chess | Snooker

## EDUCATION

### ➤ Ph.D. in Computer Science

*University of California at Santa Barbara*

📅 2018 – Present

📍 Santa Barbara, USA

Advisor: Prof. Ambuj K. Singh | GPA: 4.00

Research Area: **Network Science, Data Mining, Machine Learning**

### ➤ B.Sc. in Computer Science

*Sabanci University*

📅 2013 – 2018

📍 Istanbul, Turkey

GPA: 3.99 | 1<sup>st</sup> ranked

## SELECTED PROJECTS

### ➤ Event Detection on Dynamic Networks

📅 In Submission, 2020

- Proposed an event detection framework for dynamic graphs using Graph Convolutional Networks tested on multiple datasets.

### ➤ Bike Sharing

📅 September 2018 – December 2018

- Designed and implemented a bike sharing re-balancing problem using a network flow approach.

### ➤ Impact Measurement of Tweets

📅 October 2017 – June 2018

- Measured the hidden impact of a tweet by detecting copy-pasted or referenced tweets which are named as "Hidden Retweets" by Dr. Arin.

### ➤ CryCur

📅 January 2017 – May 2017

- Created a command line tool introducing helpful functionalities for crypto-currency application.

### ➤ Economics and Terrorism

📅 January 2017 – May 2017

- Used data science techniques to show a relation between economic prospects of the countries and terrorist incidents. These economic prospects include GDP, foreign capital investments etc.

### ➤ Differential Privacy Framework for Movie Recommendation System

📅 September 2016 – September 2017

- Proposed and implemented a movie recommendation system that utilize differential privacy framework which guarantees the privacy of the individual user ratings without losing the utility of the data too much.