

## Education

Sabanci University | 2019 - Present

BACHELOR OF SCIENCE - COMPUTER SCIENCE AND ENGINEERING

- GPA: 3.00/4
- Honors: Spring 2020-2021 Dean List: Honor
- Minor - Decision Behavior

Samsun Bahcesehir Koleji - Fen Lisesi | 2015 - 2019

## Projects

Signal Protocol | December 2022 - January 2023

- Practical cryptographic protocol for server based communication with forward secrecy.
- Developed in Python using Elliptic Curve Cryptography, SHA 256, AES 256.
- Sabanci University Cryptography Course (CS411)

Turkish Player Incentive Bonus System Web App | October 2022 - January 2023

- Full stack web application that aims to propose a solution to restriction on foreign players while encouraging clubs to give more play time to Turkish football players.
- Developed using MongoDB, Express, React, Node.js
- Available at: [cs308team40.netlify.app](https://cs308team40.netlify.app)
- Sabanci University Software Engineering Course (CS308)

Online Bookstore | October 2022 - January 2023

- A simple Book Catalog website with an implemented database of relational tables.
- Developed using SQL, PHP and Firebase for Real-time database implementation.
- Sabanci University Database Systems Course (CS306)

Classification of Automated Bot Accounts & Political Posts for Twitter | March 2022 - June 2022

- ML and NN Algorithm to classify and predict Bot Accounts & Political Posts using manually annotated datasets.
- Machine Learning and Neural Networks Project.
- Sabanci University Machine Learning Course (CS412)

Social Media for Sabanci University Students | March 2022 - June 2022

- A social media mobile app for Sabanci University members.
- Currently under development using Dart and Flutter.
- Sabanci University Mobile Application Development Course (CS310)

Exploration of COVID-19 Vaccination Data on the Basis of Presidential Election Results | October 2021 - January 2022

- Investigated the relationship between vaccination rate and political preference in the U.S. with two discrete datasets.
- Machine Learning Project
- Sabanci University Introduction to Data Science Course (CS210)

A Survey On Cryptocurrencies | March 2020 - June 2020

- Prepared a guide for people who are interested in Cryptocurrencies.
- Explanation of mechanisms of various Cryptocurrencies.
- Undergraduate Project Course (PROJ201)

Covid-19 Curfew Tracker for Turkish Citizens | November 2020

- An application that shows at what times Turkish citizens can leave their houses, during covid-19 restrictions.
- Developed using GDevelop and JavaScript.
- Available at: [erdemkaratash.github.io/portfolio/disariya-cikabilir-miyim.html](https://erdemkaratash.github.io/portfolio/disariya-cikabilir-miyim.html)
- Individual project.

# Skills

- Low Level Programming
  - C/C++
- Machine Learning and Neural Networks
  - Python
- Web Development
  - Express, React, Node.js
- Mobile Application Development
  - Dart & Flutter
- Database Management
  - MongoDB, SQL, Firebase
- Digital System Design & FPGA Programming
  - Verilog
- Cryptography
  - Python

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# Languages

- English (Advanced)
- Turkish (Native)

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# Volunteer Experience

Sabanci University Civic Involvement Project | Sep - Jan 2019

- Turkish Sign Language Course Participation Certificate - 120 Hours
  - Visited Tuzla Orhanli Ilkokulu
  - Instructed students the basics of Turkish Sign Language
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