

# ERDEM KARATAŞ

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## EDUCATION

### SABANCI UNIVERSITY

Bachelor of Science

Expected January 2024

Major in Computer Science; Minor in Decision & Behavior

Cumulative GPA: 3.00/4.0; Dean's List: Honor 2020-2021

### SAMSUN BAHCESEHIR HIGH SCHOOL OF SCIENCE

2015 - 2019

## PROJECTS

### Lake water quality mapping from satellite images with computer vision

March 2023 - Present

- A computer vision model to assess lake water quality from satellite images, aiding conservation efforts and informing policy decisions.
- Computer vision and Deep Learning Project.

### 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.

### 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)

### 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.

### Social Media for Sabanci University Students

March 2022 - June 2022

- A social media mobile app for Sabanci University members.
- Developed using Dart and Flutter.

### 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.

### 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 JavaScript.
- Available at: [erdemkaratash.github.io/portfolio/disariya-cikabilir-miyim.html](https://erdemkaratash.github.io/portfolio/disariya-cikabilir-miyim.html)

## SKILLS & OTHER

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

**Languages:** English (Advanced), Turkish (Native)