



## education

### Sabanci University

Istanbul, Turkey

### Computer Science, B.Sc

Mathematics Minor

### Major GPA

3.25 / 4.00

### Dean's Honor List

Spring '16 & Spring '17

### Expected Graduation

Spring '19

## experience

### Program Coordinator

Sep '17 - present

*Sabanci University Engineering Society*

*Istanbul, Turkey*

Formed competitive teams in fields of algorithms, data science, cybersecurity and mechatronics; organized recruitment events and preparation plans. Member of algorithms & data science teams.

### Undergraduate Researcher

Jul '17 - Sep '17

*Sabanci University*

*Istanbul, Turkey*

*Supervisor: Kamer Kaya*

Attempted to increase cache utilization of canonical polyadic decomposition on sparse tensors by reordering them. Worked extensively with C++ and written high performance graph reordering algorithms on a high performance cluster.

## course projects

### Cryptography: Math & Coding

Spring '15

*PROJ 102 - Project Course*

Studied number theory, developed RSA OAEP and El Gamal public key cryptosystems in Python as a freshman.

### Airport RDBMS

Spring '16

*CS 306 - Database Systems*

Full featured database management system designed for airports. Engineered using MySQL and PHP, designed by materialize-css & javascript. In this group project, my role was to design the front-end app and code it in HTML, CSS & JS.

### Starbucks Locations & 911 calls

Spring '16

*CS 210 - Introduction to Data Science*

Uncovered correlation among number of Starbucks stores per person vs number of 911 calls per person in Philadelphia. Performed statistical analysis, used decision trees and regressors for predictive modelling of the dataset.

## projects

### Project Hangout [ongoing]

Sep '17 - present

*React.js, Express.js, neo4j, PostgreSQL, Swift 3*

An application where users form circles (i.e. cliques), indicating that a group of users are currently in social interaction. By computing the shortest distances via follow-relationships on a graph database, server computes the similarity among circles in order to predict if two circles may merge or not.

The application exploits asynchronous nature of Node.js efficiently; various performance optimizations have been performed by performance profiling and tests.

I'm full stack engineering this application in order to have solid understanding of the challenges in development of each layer in MVC model.

*graphapp.herokuapp.com*

### Push Me

April '17

*Express.js, MongoDB*

A simple web application where clients push a button to have an entry in the database. Users can view the pushes made by other users by time, country and city. It can be considered as a basic CRUD application.

*pushmeapp.herokuapp.com*

**See my GitHub profile for more projects**

## languages & technologies

Programming (proficient) C++, Python

Programming (familiar) Javascript, C#, Swift 3, PHP

Frameworks & Libraries MERN Stack, Passport.js

Databases MongoDB, PostgreSQL, neo4j

High Performance OpenMP, CUDA

## non-technical

### Classical Piano

Oct '15 - Present

- Followed Hanon's piano exercises
- Comfortable with all natural major scales and some minor scales
- Studied baroque era; played from Bach and Haendel

### Electronic Music Production

Oct '15 - Present

- Comfortable using FL Studio 12
- 2 years of experience with subtractive and additive synthesis
- Used Harmor, Serum & Massive VSTs

### Chess

Apr '15 - Dec '15

- Studied Yasser Seirawan's opening & tactics books
- Studied Grünfeld defence and King's Indian Attack extensively