Oran CanÖren

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education

Sabanci University
Istanbul, Turkey

Computer Science, B.Sc
Mathematics Minor

Cumulative 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 heuristics 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. Engineerred 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 Stores & 911 calls corellation 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.

Parallel graph heuristics (GPU & CPU) Fall '17
CS 406/534 - Parallel Computing

Implemented state of the art parallel algorithms solving various hard graph problems such as k-coloring, written reports in LaTeX discussing the performance of the algorithms. Worked with CUDA and OpenMP on a high performance cluster.

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