Oran Can Ören

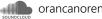✉ orancan@sabanciuniv.edu   ⬡ orancanoren   ☁ orancanoren   in orancanoren   ⌂ www.orancanoren.com   ☎ +90(545)6657024

education

Sabanci University
Istanbul, Turkey

Computer Science, B.Sc
Mathematics Minor

Cumulative GPA
3.39 / 4.00

Dean's Honor List
Spring '16 & Spring, Fall '17

Expected Graduation
Spring '19

experience

Program Coordinator   Sep '17 - present
Sabanci University Engineering Society   *Istanbul, Turkey*

Formed competitive teams in fields of algorithms, cybersecurity and mechatronics; organized recruitment events and preparation plans. Member of the algorithms team.

Undergraduate Researcher   Jul '17 - Sep '17
Sabanci University   *Istanbul, Turkey*

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

Airport RDBMS   Spring '16
CS 306 - Database Systems

Implemented a generic database management system for airports. Worked with MySQL, PHP and Javascript.

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.

Distance 2 Graph Coloring (GPU & CPU)   Fall '17
CS 406/531 - Parallel Computing

Implemented multiple distance-1 and distance-2 graph coloring algorithms working in parallel. CPU, GPU and heterogeneous parallelization was done. Written LaTeX reports discussing the performance.

Parallelized Private Information Retrieval   Fall '17
CS 411/507 - Cryptography

Implemented a recently proposed PIR scheme based on Damgard-Jurik cryptosystem, utilizing parallelization on CPUs.

solo projects

Project Hangout [ongoing]   Sep '17 - present
React.js, Express.js, neo4j, PostgreSQL, Swift 3

A social web application where users publish their ongoing social interactions. Each ongoing interaction forms a clique of users. Based on closeness of these cliques, users are suggested other ongoing interactions to participate or to merge activites with.

graphapp.herokuapp.com

CPU & GPU Hybrid Parallel Hashcash   Jan '17
C++, CUDA, OpenMP

SHA256 hashcash computer program that utilizes parallelism on CPU's and GPU's simultaneously. Given a seed s and number of desired leading zero bits of the output, t, the program finds a nonce n for which $SHA256(s + n)$ has t leading zeros.

Cryptographic Algorithms Suite   Jan '17
Python

Implemented RSA-OAEP, ElGamal, Rijndael (AES) and DES cryptosystems along with Diffie-Hellman key exchange protocol with no external libraries using Python.

See my GitHub profile for more projects

technologies

Programming (proficient)	C++, Python
Programming (familiar)	Javascript, C#, Swift 3
Frameworks & Libraries	MERN Stack
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