Oran Can Ören

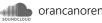✉ orancan@sabanciuniv.edu ⬡ orancanoren ☁ orancanoren in orancanoren ⌂ www.orancanoren.com ☎ +90(545)6657024

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

Undergraduate Researcher — Jul '17 - Dec '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

Movify [ongoing] — Spring '18
CS 308 - Software Engineering
Node.js, Python, neo4j, Postgres, React Native

A mobile application for users to keep track of movies they have watched and will watch. Users can follow other users and retrieve feed on their actions (i.e. watched movies, reviews). Users are recommended movies they may enjoy. Worked in a team of five employing agile software development practices involving version control through Git and sprint planning through JIRA.

Parallelized Private Information Retrieval — Fall '17
CS 411/507 - Cryptography
C++, OpenMP

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

Distance 2 Graph Coloring (GPU & CPU) — Fall '17
CS 406/531 - Parallel Computing
C, C++, OpenMP, CUDA

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.

Starbucks Stores & 911 calls corellation — Spring '16
CS 210 - Introduction to Data Science
Python, Scikit, Pandas

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.

solo projects

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.

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.

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

See my GitHub profile for more projects

technologies

Programming (proficient)	C++, Python
Programming (familiar)	Javascript, C#, Swift, Java
Frameworks & Libraries	MERN Stack
Databases	MongoDB, PostgreSQL, neo4j
High Performance	OpenMP, CUDA
Data Science & ML	Tensorflow, Scikit

non-technical

Classical Piano
- Followed Hanon's piano exercises
- Comfortable with all natural major scales and some minor scales
- Played from Bach, Haendel and Chopin

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

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