

Gorkem Yar

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EDUCATION

Sabanci University

Bachelor of Science in Computer Science

Sept/19 – Jun/24

Istanbul, Turkey

CGPA: 4.00/4.00

Ranked 1st in the Computer Science department and the faculty.

Important Courses: Algorithms, Software Engineering, Operating Systems, Database Management Systems

Honors: Received Sakip Sabanci Outstanding Success Scholarship

(a full tuition waiver, a monthly stipend, and free accommodation in double room dormitories)

Boston University

Exchange Student in Computer Science Department

Jan/23 – May/23

Boston, MA

CGPA: 4.00/4.00

Important Courses: Advanced Data Structures, Programming Languages, Computer Systems

EXPERIENCE

Foreks Digital

iOS Developer Intern

Jul/23 – Current

Istanbul, Turkey

- Developing and maintaining a stock market app for iOS using both SwiftUI and UIKit, mirroring the features and functionalities of the original Foreks Digital mobile app.
- Leveraging Git and applying software design patterns to guarantee a codebase that is organized and maintainable.
- Collaborating effectively with the development team in an agile environment, participating in code reviews and receiving feedback.

Layermark

Full Stack Developer

Oct/22 – Mar/23

Istanbul, Turkey

- Implemented and maintained web front-end features, pages and responsive UI components using ReactJS, resulting in improved user experience and faster development times.
- Developed and delivered a new business management API using Flowable and Java, resulting in an improved and efficient business management process.
- Participated in sprints as an independent software engineer, utilizing Agile/Scrum methodologies and tools such as Jira and YouTrack to efficiently manage and track progress.

KordSA

Junior Software Engineer

Jul/22 – Sep/22

Istanbul, Turkey

- Plan and create relational database tables in Microsoft SQL Server.
- Design, implement, and maintain responsive reusable UI components for web front-end applications in Angular, CSS, and HTML.
- Developed robust web platform backend APIs using C# and .NET.

Sabanci University

Teaching Assistant

Sep/21 – Jan/23

Istanbul, Turkey

- Delivered weekly recitation lectures in Data Structures and Algorithms courses.
- Graded quizzes, tests, and exams.

RESEARCH EXPERIENCE

Indoor GPS

Supervised by Prof. Ibrahim Tekin and Prof. Hüsnü Yenigün

Jul/23 – Current

Istanbul, Turkey

- Developing an innovative indoor GPS with MATLAB, employing special converters to change 1.5 GHz GPS signals to 433 MHz signals, enabling seamless communication between satellites and receivers within indoor environments.

- Utilizing data cleaning techniques to enhance the efficiency of hyperbolic positioning algorithms, to ensure accurate indoor GPS performance.

Relative Testing

Jan/23 – Current

Supervised by Prof. Cemal Yılmaz and Prof. Hüsnü Yenigün

Istanbul, Turkey

- Developing a concolic (symbolic and concrete) execution-based automatic grading tool in Python for grading assignments at Sabanci University.
- Creating a test bench with 100% condition coverages for the integer and the string data types by utilizing the Z3 problem solver library to solve constraints and find counterexamples.
- Generating automated test cases for the given correct implementation. Using the test cases generated for the correct implementation, checking the correctness of the candidate implementations.

Twitter Bot Detecting

Sep/22 – Jan/23

Term Project in Machine Learning course (Prof. Onur Varol)

Istanbul, Turkey

- Developed a machine learning model for distinguishing between human and bot Twitter accounts, and detecting whether a tweet is political or not.
- Employed various models such as SVM, Logistic Regression, AdaBoost Classifier. Further, utilized TensorFlow for text vectorization to enhance the machine learning process.
- Achieved a mean squared error (MSE) of 0.1081 for bot account detection and 0.1486 for identifying political tweets.

PROJECTS

Exam Scheduling Project

Jan/23 – May/23

- Implemented and examined the graph coloring algorithms in C++ to solve exam scheduling problem.
- Compared the efficiencies of the greedy algorithms like DSatur, RLF and Welsh-Powell in terms of time and count of colors (Exam Slots).
- Made a visualization using Python – NetworkX library.

Socket Programming Project

Sep/22 – Jan/23

- Developed a multi-player question answering game utilizing server-client architecture.
- Led a team of 5 to develop application in C#

E-Commerce Website

Feb/22 – Jun/22

- Led development of an Amazon-like website using Python, FastAPI, React, and Flutter.
- Maintained the development process in an Agile way with Scrum.
- Designed and developed the front-end using React and JavaScript.

Social Media Clone

Feb/22 – Jun/22

- Cloned Instagram like social media app using Flutter with a team 4.
- Designed the pages and flow of the application using Figma.
- Used Firebase like backend to store necessary data.

SKILLS

Programming: Swift, SwiftUI, Python, C++, JavaScript, React, C#, Angular, Typescript, Data Structures, Algorithms, Object Oriented Design, Machine Learning, Database Design, SQL, Git, Socket Programming, Unity.

Language: English (C1), Turkish (Native)

VOLUNTEER EXPERIENCE

Civic Involvement Project

Feb/20 – Jun/20

Volunteer

Istanbul, Turkey

- Mentored and organized activities for 30 economically disadvantaged primary school students to help them explore career paths and reduce inequality over one semester.