

Goktug Aygun

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Orta Mah. Üniversite Cad. No: 27 34956 Orhanlı Tuzla/İstanbul

EDUCATION

Sabanci University, Istanbul, Turkey

BSc in *Computer Science and Engineering*, Minor in *Decision & Behavior*

Sep 2021 - Jun 2025

GPA: 3.78 / 4.00

Ranking: 26 / 319

Coursework: *Data Structures & Algorithms, Theory of Computation, Discrete Math, Computer Architecture, Artificial Intelligence, Machine Learning, Operating Systems, Database Systems, Computer Networks, Software Engineering*

Sakip Sabanci Encouragement Award, 2022 & 2023: Full Tuition Scholarship Awarded for Academic Excellence

Sezin High School, Istanbul, Turkey

Sep 2016 - Jun 2021

GPA: 96.56 / 100.00

75% Scholarship Awarded for Success in National Examination,

Graduated as 2nd out of 96

Participated in National Mathematics Exams ASMA and Math League

TECHNICAL EXPERIENCE

OBSS, *Software Developer Intern*, Istanbul, Turkey

Jun – Sep 2024

- Developed full-stack application using React.js and .NET.
- Designed REST APIs with authentication and authorization mechanisms.

Sabanci University, *Undergraduate Learning Assistant*, Istanbul, Turkey

Sep 2022 – Jan 2024

- Mentored 2000+ students in Python and C++ across multiple semesters.
- Led weekly recitation sessions and office hours to reinforce course concepts

PROJECTS

Analyzing Sabanci University Curricula in Relation to the Sustainable Development Goals

Nov 2024 – Jun 2025

- Leveraging keyword based classification and LLMs to investigate the alignment between SDGs and course curricula

Designing and Implementing an LLM-based Course Assistant, Graduation Project (ENS491)

Sep 2024 – Jun 2025

- Creating an LLM-based assistant, aiming to assist students and assistants in Sabanci University
- Adapting LLaMA, creating available and trustworthy AI based assistant using Retrieval Augmented Generation

Flight Roster Project, Software Engineering Course (CS308)

Feb – Jun 2024

- Built a web application simulating the operations of an airline company
- Architected and implemented the backend architecture and developed RESTful APIs using Node.js for airline data management, leading the backend team of 7.
- Designed and implemented MySQL databases on AWS Cloud Services and leveraged MongoDB for NoSQL solutions, ensuring reliable and efficient data storage and retrieval.

Bug Severity Detector Project, Machine Learning Course (CS412)

Feb – Jun 2024

- Created a classifier utilizing different models with a team of 4
- Aimed to detect the severity of a given bug in range [1,7] based on given textual description

Investigating Graph Coloring Project, Algorithms Course (CS301)

Feb – Jun 2024

- Collaborated with a team of 2 to investigate graph coloring problem with various heuristic and greedy algorithms
- Implemented and benchmarked heuristic and greedy algorithms for graph coloring.

Study Buddy Mobile Application Project, Mobile Application Development Course (CS310) Sep 2023 – Jan 2024

- Connected students studying similar courses and supporting collaborative learning
- Built application supporting various functions such as posting, course filtering/selection etc.
- Designed and developed front-end using Android and back-end with Java, Spring Framework, containerized with Docker

DiSUCord - Message Networking via Channels, Computer Networks Course (CS408) Sep 2023 – Jan 2024

- Employed TCP sockets and designed server application layer for users to interact with using C# for Graphic User Interfaces besides .NET for necessary infrastructure
- Developed an interactive communication platform for students.

Personal Portfolio Website Jun 2023 – Jul 2024

- Created a personal website, goktugaygun.com, using HTML, CSS, JS, Bootstrap framework

Analysis of Female MPs in Turkish Assembly, Introduction to Data Science Course (CS210) Jan – Jun 2023

- Scraped, parsed, analyzed data from the original website of the Grand Assembly of Turkey to investigate gender inequality while coordinating a group of 5 undergraduates
- Used visualization tools such as Matplotlib, Seaborn to transfer meaningful data to observer
- Generated informative graphs and reports about findings

Deaths Around the World by Cause Database Application, Database Systems Course (CS306) Jan – Jun 2023

- Designed and built relational models and database system to store real world data obtained from ourworldindata.org and investigated it using Python with visualization tools

SOCIAL EXPERIENCE

Sabancı University, Marketing and Institutional Communications Team Member, Istanbul, Turkey Sep 2021– Jun 2025

- Conduct presentations and represent the university on and off the campus at events and fairs.

Sabancı University, Summer High School Mentor - Full Time, Istanbul, Turkey Jun – Aug 2022

- Organized 21 activities while collaborating with a team of 25 to enhance student engagement.
- Mentored 100 high school students, facilitating their transition to university life.

EXTRACURRICULAR ACTIVITIES

Jan 2024 - Jun 2025	Board Member	SUGastro, Organization Dept.
Sep 2022 - Sep 2023	Board Member	SUBChain, Organization and Sponsorship Department
Sep 2019 - Jun 2020	Competitor	ASMA (An international mathematics exam)
Mar 2020	Attendee	CERN Particle Physics Activity in Özyeğin University (Istanbul, Turkey)
Sep 2018 - Jun 2019	Competitor	Math League (An international mathematics exam)

PROFESSIONAL SKILLS

- **Programming Languages:** Python, C++, C#, C, Java, JavaScript, SQL, Assembly
- **Web & Backend Technologies:** REST APIs, Flask, Spring, .NET, Node.js, React.js
- **Databases:** MySQL, MongoDB, NoSQL, Chroma, Firebase
- **Cloud & DevOps:** Docker, Git
- **AI & ML:** Langchain, LLMs, RAG, NLP, Pandas, Matplotlib, Seaborn, Selenium, Hugging Face, Scikit-Learn
- **Soft Skills:** Problem Solving, Analytical Thinking, Communication, Team Collaboration, Time Management
- **Languages:** Turkish (Native), English (Advanced, Scored 113 in TOEFL), German (Beginner)

REFERENCES

Tolga Ovatman	Professor Doctor	Istanbul Technical University	ovatman@itu.edu.tr
Onur Varol	Assistant Professor	Sabancı University	onur.varol@sabanciuniv.edu
Inanc Arin	Doctor	Sabancı University	inanc.arin@sabanciuniv.edu
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