

## HASAN FIRAT YILMAZ

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### EDUCATION

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#### SABANCI UNIVERSITY

Expected June 2025 • Istanbul, Turkey

*B.S Major in Computer Science and Engineering, Minor in Business Analytics*

**CGPA:** 3.90/4.00

**Honors/Awards:** -Ranked top 0.05% among 2.4 million students in National University Entrance Exam

-Six terms High Honor Certificate (GPA higher than 3.5)

-Sakip Sabanci Merit Scholarship (100% Scholarship)

**Course Highlights:** Machine Learning, Distributed Systems, Mobile Application Development, Algorithms.

#### UPPSALA UNIVERSITY

January 2024 – June 2024 • Sweden

*Erasmus Undergraduate Exchange Program*

**Course Highlights:** Computer Graphics, Software Engineering, Security & Privacy, Internet of Things

### EXPERIENCE

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#### Pragma Software:

June 2024 – November 2024

- Leveraged **ASP.NET** and **MVC framework** using **C#** to contribute to various projects, focusing on the design and implementation of both the frontend and backend for Jolly Joker's new webpage.
- Utilized **Git** effectively and regularly to manage code versions and enhance team collaboration on projects.

#### Finartz:

Jan 2023 – Feb 2023

- Developed a project website for a fintech company during my internship at Finartz, leveraging state-of-the-art AI tools.

### PROJECTS

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#### Specialized Large Language Model for Battery Literature (RAG):

Oct 2024 – Present

- Developing a **retrieval-based large language model** as part of the graduation project using the LangChain framework, Llama 3.1 LLM, Sentence-BERT embeddings, and the Chroma vector database.
- Implemented **search functionality** across documents using the Elasticsearch engine.
- The model assists company employees by providing answers derived from battery-related literature via a **Django-based webpage interface**.

#### Predictive Modeling for Homework Scores using Machine Learning:

Oct 2023 – Jan 2024

- Developed a **machine learning** model in **Python**, leveraging PyTorch and TensorFlow libraries.
- The model forecasts homework scores of students based on their ChatGPT interactions.

- Client-Server Message Networking Application:** Oct 2023 – Jan 2024
- Developed a message networking application using **C#**, implementing Client and Server modules as parts of a computer networking course.
- Building A Fitness Tracker Mobile Application:** Mar 2023 – June 2023
- Developed a fitness-tracking app using **Java** and **Android Studio**, integrating **MongoDB** to securely store user workout logs.
- Quantifying Political Division and Sentiment Analysis in Turkey:** Mar 2023 – June 2023
- Conducted **sentiment analysis** using **Python** and machine learning to quantify political content consumption, evaluate negativity in YouTube comments, and analyze whether it targeted specific politicians or was evenly distributed.
- Analysis of Suicide Rates and Living Conditions:** Mar 2023 – June 2023
- Utilized **MySQL**, **Python**, and **Excel** for comprehensive data analysis, aiming to uncover insights into underlying factors associated with higher suicide rates.
- Designing A Mobile Application:** Oct 2022 – Jan 2023
- Designed a mobile application by using **Figma** as part of the Interface Design course, with a focus on user interface design.

## SKILLS

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**Language:** Turkish (Native), English (Professional Proficiency)

**Computer:** Docker, ASP.NET, C#, React, React Native, Stable Diffusion, Elasticsearch, C++, Java, Python, MySQL, Android Studio, MongoDB, Microsoft Office Applications (Excel, Word, PowerPoint), HTML/CSS, JavaScript, Figma, Git,

## ACTIVITIES

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**Co-President**, Sabanci University Computer Science Society {CSS} Jan 2023 – Jan 2024  
**Board Member**, Association for Computing Machinery, Sabanci University Oct 2022 – Jan 2023