

# Mertcan Gelbal

Istanbul, Turkey

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I have a solid track record in Artificial Intelligence and technology, gained through diverse projects and internships. My experience includes creating advanced AI solutions, optimizing systems, and solving complex algorithmic problems. I am committed to applying my skills to develop innovative solutions and drive technological progress.

#### Education

2021 - 2025

**Marmara University** 

BS – Computer Engineering

#### **Experience**

06/2024 - 08/2024

#### INTERTECH

Software Development Intern

- Developed expertise in AI technologies by implementing the GPT-4 model for natural language processing in the "Egitim Denizi" project, which enhanced financial literacy through customized content and interactive quizzes.
- Enhanced accessibility by integrating Azure Translator services for multilingual support and utilized Azure Text to Speech and Speech to Text to optimize user interaction through effective voice feedback mechanisms.
- Designed and implemented a Retrieval-Augmented Generation (RAG) architecture to deliver precise, information-driven responses, improving the overall user experience and learning outcomes.
- I contributed to the Agile development by engaging in regular Scrum meetings, refining product development strategies, and fostering collaboration within cross-functional teams.

07/2023 - 09/2023

## **Quark Optical A.S**

Embedded Systems Software and Design Development Intern

- Acquired hands-on experience in developing a temperature measurement project for a space technology chip utilizing STM32.
- Strengthened skills in embedded systems analysis and design through active involvement in the Time Digital Converter project and a Wi-Fi Controlled valve project.
- Successfully developed a custom application for valve control, involving database integration for enhanced functionality.

09/2019 - 06/2020

#### TNC TOSHIBA Authorized Service

**Mechatronics Technician** 

- Identified and resolved diverse computer issues, showcasing diagnostic skills and delivering timely solutions to clients.

### Languages & IT Knowledge

Turkish (Native Language) English (Pre-Intermediate) Python Java C Assembly MySQL TensorFlow Keras Pandas OpenCV

### Volunteer Work

2023 – 2024 GDSC Marmara University Co-Lead

08-09/2023 Turkey Cyber Security Cluster

	Threat Hunting Training - Gathering and Analyzing Threat Intelligence - Identifying Cyber Attacks and Vulnerabilities
2022 – 2023	<ul> <li>Turkey Engineers Community, Community Management Team</li> <li>Our community fosters social interaction among members, leading to the formation of teams that participate in software competitions.</li> </ul>
2021 – 2022	<ul> <li>Marun-ACAR Technology Team, Software Team Leader</li> <li>Prepared a robot for the Autonomous UAV Mission Competition category, gaining valuable teamwork experience.</li> </ul>
2018 – 2020	<ul> <li>AR-GE Community Leader</li> <li>Secured 2nd place in the Basaksehir Living Lab Competition and gained valuable experience by achieving the same ranking in an international competition held in Korea.</li> </ul>

### **Project**

## **Signature Forgery Detection using Artificial Neural Networks**

The project aims to detect if a user-provided sentence is a palindrome using a stack, a specialized data structure. The sentence undergoes space removal, and the palindrome validation occurs by adding and removing characters in reverse order through the stack.

## **Find Palindrome Sentences Project**

The project aims to detect if a user-provided sentence is a palindrome using a stack, a specialized data structure. The sentence undergoes space removal, and the palindrome validation occurs by adding and removing characters in reverse order through the stack.

Certificate	
08/2024	Software Engineering Intern INTERTECH
07/2024	BÖYOYO Artificial Intelligence Bilim Akademisi
07/2024	Google Developer Students Club's Marmara University Co-Lead Google DSC Marmara University Club's
09/2023	Turkey Cyber Security Cluster Threat Hunting Turkey Cyber Security Cluster
04/2023	Artificial Intelligence Training Certificate  Ecodation
10/2022	Complete Java Developer Course from Scratch <sup>Udemy</sup>
06/2022	Face and Object Recognition with Computer Vision   R-CNN, SSD, GANs Udemy
06/2022	Python   Advanced Programming from Scratch Udemy

### **Hobbies**

Aikido (Licensed) Swimming Hiking