# **IREM OZBILGIN**

# Software Engineering Student

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## **ABOUT ME**

Software Engineering student at Maltepe University with hands-on experience in AI, image processing, and full-stack software development through multiple internships and international projects. Developed strong leadership, organization, and communication skills by leading university tech communities, including serving as Lead of Google Developer Groups (GDG) on Campus Maltepe. Aiming to leverage my technical expertise and leadership experience to contribute value to innovative software and AI projects.

## **EDUCATION**

Sep 2022 - Expected Jun 2027

Maltepe University, Istanbul, Türkiye

Software Engineering Student
Completed B2+ English Preparatory Program

## **EXPERIENCE**

## Student Assistant — Faculty of Engineering and Natural Sciences,

Maltepe University

Nov 2025 – ..

arrebe University

 Provided academic and administrative support to faculty members, assisted with course materials, student coordination, and basic departmental tasks.

### TNC Group - Information Technologies Intern

Oct 2025 - ..

- Creating automation scripts in Python for data workflows.Using MATLAB for modeling and analysis.
- Supporting IT process optimization through applied projects.

#### Al Intern / Inteliate(London)

Oct 2024 - Jul 2025

- Built and fine-tuned NLP and emotion recognition models using Transformers (Hugging Face) and Python
- Developed front-end interfaces with React to visualize model outputs
- Collaborated with a 5-person AI research team and presented weekly progress reports

#### Infinite People – Mönchengladbach, Germany

July 2021 – Sep 2021

- Organized developer profiles and project requirements to improve internal data efficiency.
- Gained experience in international tech recruitment workflows and remote collaboration.

## **PROJECTS**

### Meeting Management App (React)

- - Built a task and meeting scheduling web app using React, JavaScript, HTML, and CSS.
- Implemented state management with React Hooks and Zustand; handled async data with REST APIs and JSON.
- Designed user interface mockups using Canva.

## Object-Oriented Smart Home System (Java)

- - Developed a modular smart home simulation using Java OOP principles (encapsulation, inheritance, polymorphism).
- Implemented command-based control system and tested using JUnit.

#### **AI-Powered Translation Automation System**

- Automated multilingual document translation using Python, ChatGPT API, and NLP; optimized model accuracy through iterative validation.
- Integrated workflow automation with N8n and API endpoints using FastAPI.
- Deployed and containerized services with Docker; versioned and collaborated via GitHub.

#### **Smart Beehive Monitoring & Early Warning System**

- Built low-power ESP32-S3 firmware: drivers for HX711, SHT31, and I<sup>2</sup>S MEMS mic; deep sleep; LoRa (868 MHz) telemetry + BLE service; OTA updates; microSD buffering.
- Implemented on-device ML: MFCC features + TensorFlow Lite Micro (1D-CNN) to compute swarm/queen status scores; fused with weight-temperature/humidity-vibration signals for anomaly detection.
- Delivered a local hub & web UI: LoRa→ESP32 hub running as a Wi-Fi AP for offline charts/alerts; JSON API; calibration and configuration flows.

# **SKILLS**

Programming: Python, Java, C, JavaScript, HTML, CSS, React

AI/ML Tools: AI/ML Tools: PyTorch, scikit-learn, ChatGPT API, NLP, N8n, OpenAI, Optimization, Statistical Analysis, Recognization Emotional

Academic Researcher, Stanford University

**Dev Tools**: Git, GitHub, FastAPI, REST APIs, JSON, Docker **Soft Skills**: Leadership, Agile Collaboration, Event Planning

Design: Canva, Microsoft Office Suite

# REFERENCE

**Tolga Büyükyazı**Al Unit Leader, Baykar Technology

Kristopher Ian White

**Madison Robinson** 

Informatics Analyst II-Abbott(TX)

# **VOLUNTEER EXPERIENCE**

## Community Lead – GDG on Campus Maltepe| 2025 – 2026

- Organized Al and software development workshops, reaching 150+ students.
- Managed partnerships and communication between sponsors and participants.