Mustafa Özdemir

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Third-year Computer Engineering student with a strong focus on backend development and modern software architectures. I have worked on developing backend systems using ASP.NET Core and Spring Boot, along with Entity Framework and PostgreSQL, and gained practical experience with these technologies. I also have knowledge of layered architecture and API design principles. I am actively developing projects and contributing to a student developer community, while continuously improving my skills in system design, microservices architecture, and cloud technologies.

Education

Inonu University Malatya, Türkiye

Bachelor of Computer Engineering (2023 – Present)
GPA: 2.89/4.00

Experience

Microsoft Remote
IA Innovators Summer Program Jun 2026- August 2026 (planned)

- Selected for the Microsoft AI Innovators Summer Program, a competitive mentor-led initiative focused on applied AI and modern system design.
- Building an end-to-end AI solution with Azure AI, Copilot, and agent-based frameworks, covering design, implementation, and evaluation.
- Participating in weekly technical reviews and preparing a final project demonstration and presentation.

Digital Transformation Office, İnönü University Malatya, Türkiye
Software Engineer January 2025 – June 2025

- Contributed as a part-time backend engineer in a microservices-based project using Spring Boot.
- Developed and maintained backend services using PostgreSQL, MongoDB, and Redis, and supported containerized workflows with Docker.
- Collaborated on cross-functional delivery by supporting frontend tasks with React and backend API integration.

Projects

3D Digital Twin System for Disaster Response (TÜBİTAK 2209-A)
Technologies: GIS, 3D Modeling, AI, Image Processing, Geospatial Data

- Developed a 3D GIS-based digital twin system to support post-earthquake decision-making.
- Integrated AI and image processing outputs with geospatial data for disaster damage analysis.
- Combined 2D damage detection results with 3D spatial modeling to improve assessment accuracy.
- Contributed to real-time disaster analysis features for emergency response scenarios.
- Implemented support modules for route optimization and safe-zone detection in emergency planning.

AI-Based Object Detection System (TEKNOFEST – Aviation AI Category)
Technologies: Python, YOLO, Computer Vision, Deep Learning, Data Augmentation

- Participated in a computer vision project in the TEKNOFEST Aviation AI category.
- Contributed to passing the preliminary design stage of the competition.
- Developed and tested YOLO-based object detection models on drone imagery.
- Performed dataset preparation, image annotation, and training data optimization.
- Applied preprocessing and data augmentation techniques to improve model performance.
- Gained hands-on experience in end-to-end deep learning workflows and real-world CV problem solving.

Leadership & Activities

Huawei Student Developers Inonu University

Vice President & Technical Project Committee Lead

- Served as Vice President, supporting overall community management, strategy, and organizational decision-making
- Led the Technical Project Committee, coordinating software development initiatives and guiding technical project execution

Skills

Technical:

Spring Framework, React.js, JavaScript, Hibernate, SQL, Maven, Spring Microservices, Elasticsearch, Java, Docker, Jenkins, Redis, Git, PostgreSQL, Linux, RabbitMQ, OOP, RESTful API Design, Clean Architecture