Pelinsu Acar

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EDUCATION

University of Bologna — Bologna, Italy
Master of Science in Artificial Intelligence; GPA: 102/110 — *2022 – 2024*

Bilkent University — Ankara, Turkey
Bachelor of Science in Electrical and Electronics Engineering; GPA: 3.52/4.0 — *2016 – 2021*

EXPERIENCE

CNH INDUSTRIAL BELGIUM NV — Zedelgem, Belgium
Master's Thesis Student — *March 2024 – December 2024*

- Conducted research on state-of-the-art Zero-Shot and Open-Vocabulary Object Detection models (OWLv2 and YOLO-World) using different query embedding techniques (CLIP, DINOv2) to asses kernel detection performance for real-time grain loss assessment.

MLPS AD — Bulgaria (Remote)
Computer Vision Intern — *August 2023 – September 2023*

- Developed a license plate recognition system using OpenCV and Tesseract OCR. Enhanced car detection with SSD MobileNet, Grad-CAM, and a color detection pipeline using K-Means and RGB matching.

NTT DATA Business Solutions — İstanbul, Turkey
Junior Big Data Engineer — *December 2021 – August 2022*

- Worked as a data engineering consultant in ZF Global's DMP project, designing data transformations with PySpark and SQL on Databricks/Synapse.
- Integrated manufacturing execution systems into a unified data model for an Angular + Power BI OEE dashboard and improved stability through CI/CD, bug fixes.
- Collaborated effectively with a multinational team & customer through pair programming, knowledge transfer and sprint DEMO sessions.

HAVELSAN — Ankara, Turkey
Candidate System Engineer — *March 2021 – December 2021*

- Contributed to the autonomous ground vehicle project (BARKAN), focusing on network design.
- Implemented VLAN tagging, GRE tunnel, and OSPF protocol on Linux using Quagga software.

SIGNIFICANT PROJECTS

One/Zero Shot Vehicle Detection on Satellite Images — *University of Bologna*
Machine Learning for Computer Vision Term Project — *2024*

- Implemented and evaluated two open-vocabulary object detection models, OWLv2 and YOLO-WORLD, for detecting vehicle classes in satellite images using both text and image queries.

Personal Identifiable Information Detection in Student Writing — *University of Bologna*
Natural Language Processing Project Work — *2024*

- Developed and evaluated NER and LLM-based models for PII detection in student essays, achieving a top F5 score of 0.743 with a spaCy-based NER approach.

Anti-Covid19 Systems — *Bilkent University*
Electrical and Electronics Engineering Design II Term Project — *2021*

- Developed an IoT application using Arduino UNO and Raspberry Pi4 to monitor face masks and body temperature. Implemented facial recognition with OpenCV to detect unmasked faces, displayed data on an Android app, and sent user notifications.

Languages

English *Level: Advanced*
Turkish *Level: Native*

Skills

Programming Languages: Python, Matlab, SQL, VHDL, Java
Databases: PostgreSQL, SQL Server
Libraries & Frameworks: NumPy, Pandas, OpenCV, NLTK, scikit-learn, HuggingFace, TensorFlow, PyTorch
Tools & Technologies: Git, Docker, Anaconda, Azure Databricks, Azure Synapse, Simulink, Vivado

Licenses & Certifications

- Microsoft Certified: Azure Data Fundamentals
- IELTS (Grade: 7/9)
- GRE General Test (Quantitative Reasoning: 167/170)
- Associated Board of the Royal Schools of Music (ABRSM) Certificates (Grade 5 Music Theory & Piano, passed with distinction)

Honors & Rewards

- Granted a scholarship for my master's degree at the University of Bologna by the Ministry of Foreign Affairs and International Cooperation (MAECI), 2022 – 2023.
- Bilkent University High Honor Certificates, 2016-2017 Spring, 2017-2018 Fall, 2020-2021 Fall, 2020-2021 Spring.
- Placed 2980th in the National University Entrance Exam among over 2.2 million students and granted %50 scholarship for the undergraduate program by Bilkent University, 2016.