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AHMET CAN GÜNAY

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Date of birth: 12/02/2000 **Nationality:** Turkish

ABOUT ME

As a graduate of Electrical-Electronics & Industrial Engineering, I have cultivated a strong foundation in technical principles and problem-solving methodologies. My passion lies at the intersection of technology and innovation, particularly in the realms of Artificial Intelligence (AI), Data Science, and their applications in healthcare.

WORK EXPERIENCE

[24/07/2024 – Current]

Master Research Student

Medipol University | SABITA | Q-LAB Research Group

City: Istanbul | **Country:** Türkiye

Q-Lab focuses on revealing the neural circuits behind a certain function by using specific neurostimulation techniques such as optogenetics – chemogenetics and recording electrophysiological and behavioral changes.

[16/10/2023 – 07/07/2024]

Data scientist

Next4biz Information Technologies CRM & CSM Company

City: Istanbul | **Country:** Türkiye | **Name of unit or department:** R&D Department

- Develop and implement NLP algorithms and models to extract insights from unstructured text data.
- Design and train machine learning models for various NLP tasks such as sentiment analysis, named entity recognition, text classification, and retrieval augmented generation (RAG).
- Collaborate with cross-functional teams to gather requirements and understand business needs for NLP-driven solutions.
- Preprocess and clean large-scale text datasets to ensure data quality and suitability for analysis.
- Conduct exploratory data analysis (EDA) to identify patterns, trends, and anomalies in text data.
- Develop and maintain pipelines for data ingestion, processing, and model deployment in production environments.
- Provide technical guidance and mentorship to junior team members on NLP techniques, machine learning algorithms, and data science best practices.
- Communicate findings, insights, and recommendations effectively to both technical and non-technical stakeholders through presentations, reports, and dashboards.

[05/06/2023 – 25/08/2023]

Project Management Intern

Mercedes Benz Türk A.Ş.

City: Istanbul | **Country:** Türkiye | **Name of unit or department:** Project Management Office | **Business or sector:** Manufacturing

- Coordinate and oversee all aspects of project planning, execution, and delivery within the automotive manufacturing environment.
- Develop project plans, schedules, and budgets in alignment with company goals, customer requirements, and industry standards.
- Collaborate with cross-functional teams, including engineering, procurement, production, quality assurance, and logistics, to ensure seamless project execution and alignment of activities.

- Monitor project progress, identify potential risks and issues, and implement mitigation strategies to ensure timely delivery and adherence to budget and quality standards.
- Facilitate regular project meetings, including kick-off meetings, status updates, and post-mortem reviews, to communicate project objectives, milestones, and action items.
- Utilize project management tools and software, such as Gantt charts, Kanban boards, and issue tracking systems, to facilitate project tracking, reporting, and decision-making.

[04/06/2022 – 23/08/2022]

Embedded Software / Design Engineering Intern

Panasonic Electric Works Türkiye

City: Istanbul | **Country:** Türkiye | **Name of unit or department:** R&D Department | **Business or sector:** Manufacturing

- Supporting the software architecture design of projects
- Coding drivers of peripheral units
- Testing of cards whose coding is completed
- TI, PIC, STM32, ARM, etc. Design and development with processors
- Coding ARM-based STM32 MCUs
- Design electronic circuit diagrams and printed circuit boards with Proteus, Altium or KiCAD

EDUCATION AND TRAINING

[01/07/2024 – Current]

Statistics (Msc. Degree)

Mimar Sinan Fine Arts University

City: Istanbul | **Country:** Türkiye |

[16/09/2020 – 16/02/2024]

Industrial Engineering

Istanbul Kültür University https://www.iku.edu.tr/

City: Istanbul | **Country:** Türkiye | | **Final grade:** 3.30

[03/09/2018 – 24/01/2024]

Electrical & Electronics Engineering

Istanbul Kültür University https://www.iku.edu.tr/

City: Istanbul | **Country:** Türkiye | | **Final grade:** 3.23

LANGUAGE SKILLS

Mother tongue(s): Turkish

Other language(s):

English

LISTENING C1 **READING** C1 **WRITING** C1

SPOKEN PRODUCTION C1 **SPOKEN INTERACTION** C1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

My Digital Skills

Computer Vision | Machine Learning | Data Science | Data Collection, Data Processing, Data Analysis, Data Visualization | C, C++,C# | Python (PyROOT, RDataFrame; ML: Keras, TensorFlow) | Microsoft Office | Version Control System (Git) | Matlab/Simulik | Artificial Intelligent | ARM Microcontrollers | SQL and MS-SQL | App development: Flutter & Dart, React & React native, | PCB Design

PUBLICATIONS

[2024] **Boosting CRM Chatbot Solutions with Flash Attention and Probabilistic Inference**

Reference: Conference: ISPR2024 (The International conference on intelligent systems and patters recognition)

[2023] **BI-RADS Classification from Mammography Images using Deep Learning**

KOCADAĞLI, O., GÜNAY, A. C., TOKTAY, B., TEKİN, A., & YAZGAN, H. [Document], https://dps.tuik.gov.tr/index.php/s/WFS1Lrh5hUTyuV8#pdfviewer (2023).

Link: https://dps.tuik.gov.tr/index.php/s/WFS1Lrh5hUTyuV8

[2023] **Sentiment Analysis of Tweets on Online Education during COVID-19**

Yıldırım, E., Yazgan, H., Özbek, O., Günay, A. C., Kocaçınar, B., Şengel, Ö., & Akbulut, F. P. (2023, June). Sentiment Analysis of Tweets on Online Education during COVID-19. In *IFIP International Conference on Artificial Intelligence Applications and Innovations* (pp. 240-251). Cham: Springer Nature Switzerland.

[2023] **Analyzing the Operations at a Textile Manufacturer's Logistics Center Using Lean Tools**

Günay, A. C., Özbek, O., Mutlu, F., & Aktin, T. (2023, May). Analyzing the Operations at a Textile Manufacturer's Logistics Center Using Lean Tools. In *International Symposium on Intelligent Manufacturing and Service Systems* (pp. 415-426). Singapore: Springer Nature Singapore.

PROJECTS

[12/07/2024 – Current] **Mr Görüntüleme Kullanılarak Glioblastoma Hastalarındaki Genetik Mutasyonların Yapay Zekâ Teknikleri ile Sınıflandırılması (TUBITAK 1001)**

TUBITAK-ARDEB Project: Classification of Genetic Mutations in Glioblastoma Patients with Artificial Intelligence Techniques Using MR Imaging

Project Duration: 12.07.2024 - Ongoing

Role: Graduate Researcher

Research Group: EEEAG

Project No: 124E170

In this project, we use artificial intelligence techniques to classify genetic mutations by analyzing MRI images of glioblastoma patients. Our aim is to contribute to the development of personalized treatment strategies by determining the genetic profile of patients with a non-invasive method. The project offers an innovative approach to brain tumor diagnosis and treatment by combining the fields of image processing, machine learning and bioinformatics.

Link: https://tubitak.gov.tr/sites/default/files/2024-07/Desteklenmesine_Karar_Verilen_Projeler.pdf

[01/01/2023 – Current] **2023 - 2024 Artificial Intelligence in Health Competition University and Above Level Disease Detection with Computer Vision Category (5th Grade in 2024)**

Technologies such as Convolutional Neural Network (CNN) and Vision Transformer (ViT) were used to classify breast cancer, find breast composition and tumor quadrant

information through mammography data. Technologies such as Convolutional Neural Network (CNN) and Image Transformer (ViT) were used to classify breast cancer from mammography data, to find breast composition and tumor quadrant information. In addition, Name Entity Recognition and BIRADS classification operations were performed from mammography reports. (NLP)

Link: https://cdn.t3kys.com/media/uploads/2024/09/20/2024_Sağlıkta_Yapay_Zeka_Yarışması_Final_Değerlendirme_Sonuçları_Hk.-_kAleK8t.pdf

[19/09/2024 – Current] **Mammo Lingua - Name Entity Recognition and BIRADS Classification Program**

Mammo Lingua is a GUI application for Name Entity Recognition (NER) and BIRADS Classification. The application is built using Python with PyQt5 for the GUI and SpaCy for NER. The goal is to provide a tool that can analyze medical texts, identify named entities, and classify BIRADS categories. The idea comes from Teknofest 2024 Artificial Intelligence in Health Competition University and Above Level Disease Detection Category.

Features

- **Custom GUI:** A modern, dark-themed user interface built with PyQt5.
- **NER Analysis:** Automatically extracts medical entities (e.g., anatomy, observations) from the text.
- **BIRADS Classification:** Classifies the text based on BIRADS categories using a pre-trained model.
- **File Upload and Save:** Upload medical text files for analysis and save the results in JSON format.
- **Dark Mode:** Dark theme for enhanced readability.

Links: https://github.com/ahmetcangunay/mammo_lingua | https://huggingface.co/ahmet1338/MammoTagger | https://huggingface.co/ahmet1338/MammoBiradsScore

[01/01/2022 – 01/08/2022] **Teknofest 2022 Rocket Competition Medium Altitude**

I designed the avionics and communication parts of the rocket produced by the Asimov-x Rocket team, which I participated in the medium altitude category of the Teknofest 2022 rocket competition and created the algorithm.

VOLUNTEERING

[01/08/2023 – Current] **School Support Association Education Volunteer** Istanbul

School Support Association, T.R. using different educational technologies. In line with the curriculum announced by the Ministry of National Education and international good examples, it aims to increase the level of knowledge of secondary school students on course subjects, to acquire critical thinking, using information and communication technologies for educational purposes, problem solving and analytical thinking skills.

[01/03/2020 – Current] **United Nations Volunteers** Remote

I am dealing with translation and website design as a freelance translator and website designer for charities and some volunteer jobs.