

# EGE DEMIR

Istanbul, Turkey

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## EDUCATION

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**Middle East Technical University, Ankara**

2019 - 2023

Bachelor of Industrial Engineering with a focus on Operations Research

Department of Industrial Engineering

cGPA: 3.52/4.00

Developed an [advertising strategy algorithm](#) that reaches desired target audience exposure levels in order to maximize life time value for mobile apps using the minimum budget possible across online ad marketplaces with bidding mechanisms such as Google, Meta and Tiktok using optimal control theory

Ranked in the top 0.0012 percent in the university entrance exam

## EXPERIENCE

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**MyPeachAI**

Seattle, USA

*Founding Machine Learning Engineer (40 hrs/week, remote)*

*Oct 2023 - March 2024*

- **Led the machine learning team** at a pre-seed AI companion/chatbot startup
- Created a **scalable** generative AI system which served 100's of customers concurrently
- Curated conversational and safety datasets and aligned LLM's to ensure engaging and ethical conversations with AI companions, which **drove up engagement more than 50%** compared to base LLM's and was **featured in the Guardian**
- **Finetuned generative models** on humans models' text, image and voice data who consentfully participated in the platform, which achieved a very high degree of resemblance
- **Created multimodal API's** such as user image input and text to voice for AI
- Built internal tools to analyze user data, which **shifted the product pricing strategy**
- Used Python, PyTorch, AWQ, vLLM, ComfyUI, Huggingface, Anyscale, Google Cloud

**Bueno**

Los Angeles, USA

*Machine Learning Engineer (20 hrs/week, remote)*

*Sep 2021 - May 2023*

- Developed tools to aid artists in a generative art startup as the sole ML engineer, such as:
- A multimodal system to write backstories for artwork using LLM's **based on how they looked**
- A model to extend the artists' artwork using their style by **finetuning Stable Diffusion**
- A **real time background removal** tool for avatars used in themicroverse.art
- Developed the **frontend, backend, ML and cloud components** for these tools using Python, PyTorch, React, Typescript and AWS Sagemaker

**Summarify**

Istanbul, Turkey

*Natural Language Processing Research Engineer (20 hrs/week, remote)*

*Dec 2020 - Sep 2021*

- Developed **state of the art Turkish NLP models** for social media analysis.
- Created the best Turkish summarization algorithm to date by curating a novel dataset and finetuning mT5, which also **scored better than humans by ROUGE score**

**Global AI Hub**

Istanbul, Turkey

*Lecturer (10 hrs/week, remote)*

*Feb 2020 - Sep 2021*

- Prepared courses about deep learning to the Turkish AI community; such as the "Deep Learning Tasting Tour", showcasing the latest developments in ML, and "Natural Language Processing with Deep Learning" focusing on the **Transformer** (before it was cool); live lectured to thousands of people

## VOLUNTARY WORK

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### Middle East Technical University Artificial Intelligence Society

Ankara, Turkey

*Co-founder*

*2020-2023*

- Cofounded ODTU YZT, a **college society to work on projects such as reproducing papers** and learn together by following courses, reading books and papers
- Worked on projects such as a [Python timeseries library](#) inspired by Huggingface's libraries, a [text clustering model](#) to improve the user experience for a popular Turkish social media website eksisozluk.com, and the [reproduction](#) of the Attention is All You Need paper
- **Designed an introduction to AI course** and lectured to **100's of students** over eight weeks

### CodeFest

Istanbul, Turkey

*Co-founder*

*2016-2019*

- Cofounded CodeFest, **the first highschool level USACO-style coding competition** in Turkey with 300+ annual attendees, managed a budget of 6,000+ USD and a body of 40 students

## SKILLS AND INTERESTS

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<b>Tools</b>	Python, C++, Pytorch, AWS, MySQL, Typescript
<b>Languages</b>	Native Turkish, C2 English, B1 German
<b>Interests</b>	Deep Learning, Generative AI, Operations Research

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## ACHIEVEMENTS

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**First place** in Vakavt 2022, **the most prestigious national business case solving competition in Turkey** with over 100 participating teams.

Second place in EnGenius '20 , a data science competition organized by Eczacibasi Ilac where competitors forecasted drug sales and pitched their method

First place in Turkey in the international Engineering Aptitude, Mathematics and Science Competition organized by Technology Student Association in 2017 and 2018. Participated in the finals in USA.

## ADDITIONAL COURSES

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CENG501 - **Deep Learning**, reproduced "[Beyond Fully Connected Layers with Quaternions: Parametrization of Hypercomplex Multiplications with 1/n Parameters](#)", ICLR 2021 AA, Middle East Technical University

CENG796 - **Deep Generative Models**, reproduced "[Drop the GAN: In Defense of Patches Nearest Neighbors as Single Image Generative Models](#)", CVPR 2022, AA, Middle East Technical University

**Introduction to Artificial Intelligence**, 1 year hands on program by Dr. Uzey Cetin in [KaVe](#)

**Machine Learning**, Stanford University (Coursera)