BATU HELVACIOĞLU

I am pursuing a Master's degree in Artificial Intelligence at the University of Amsterdam, with the goal of becoming an Al Researcher in industry. My current research interest is hallucinations in foundational models. Previously I tackled data limited tasks in computer vision and NLP.

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EXPERIENCE

Yapı Kredi Teknoloji, İstanbul — R&D Engineer Intern JULY 2021 - MAY 2023

- **Publication:** Contributed to "Long Form Question Answering Dataset Creation Using Noise Added Siamese BERT", published in KDIR 2022. Validated our method with additional datasets and assisted in integrating the method to company systems.
- **Sentiment and Emotion Analysis:** Developed sentiment and emotion analysis models on short-format Turkist text data. These models were used to analyze customer chats, providing insights to improve our chatbot.
- Named Entity Recognition Research: Researched named entity recognition on Turkish short format text.
- **Document Processing System Enhancement:** Improved the performance of an object-detector based document processing system with data augmentation.

EDUCATION

University of Amsterdam, Amsterdam — MSc in Artificial Intelligence SEPTEMBER 2023 - JULY 2025

- Fairness, Accountability, Credibility, and Transparency in AI: Conducted a reproduction study on "GNNInterpreter: A probabilistic generative model-level explanation for Graph Neural Networks" which was accepted by TMLR for MLRC2023.
- **Deep Learning 2:** Explored the relationship between hallucinations in LLMs and training data in the embedding space. Initially documented findings as a blogpost, expanding to publish it as a full research paper.
- **Foundational Models:** Developed a novel benchmark to measure hallucinations in grounded visual language models. Project is being further expanded and refined with the aim of publishing it as a research paper.

Koç University, Istanbul — BSc in Computer Engineering, B.A. in Business Administration

SEPTEMBER 2018 - JUNE 2023

- Artificial Intelligence Track: Completed coursework in Intro to AI, Intro to ML, Reinforcement Learning, Computer Vision with Deep Learning, Deep Learning, and Unsupervised Deep Learning.
- Computer Vision: Developed a parking occupancy detection model with object detectors.
- Thesis Project: Led the development of AI components for a Computer Vision Based Web Scraper, including an image classifier, object detector, and sentiment analysis model.

PUBLICATIONS

Helvacioglu B., et al., "[Re] GNNInterpreter: A probabilistic generative model-level explanation for Graph Neural Networks," *TMLR.*, 2024.

Çekiç, T., Manav, Y., Helvacıoğlu, B., Dündar, E. B., Deniz, O., and Eryigit, G. "Long Form Question Answering Dataset Creation for Business Use Cases using Noise-Added Siamese-BERT." KDIR 2022.

ACHIEVEMENTS

University of Amsterdam GPA: 7.06/10

Koç University GPA: 3.59/4.00

2077th out of ~2.1M students in the university entrance exam.

33rd out of ~1.1M students in the high school entrance exam.

SKILLS

Independent and collaborative research experience

Experience with CV, NLP, and LLMs.

Python (Torch), Java

English, Turkish