Emre Can **Acikgoz**

KUIS AI CENTER, KOÇ UNIVERSITY

Room Eng147, Engineering Faculty, Rumelifeneri Street, 34450, Sariyer, Istanbul, Turkey

☐ +90 (532) 772 74 55 | ✉ eacikgoz17@ku.edu.tr | ⌂ emrecanacikgoz.github.io | ⬤ emrecanacikgoz

Education

Koç University   *Istanbul, Turkey*
M.Sc. IN COMPUTER SCIENCE, KUIS AI FELLOW   *2022 - Present*

- Advisor: Prof. Deniz Yuret
- Co-Advisor: Assoc. Prof. Aykut Erdem
- Research: Deep Learning, Natural Language Processing, Multi-Modal Learning, Computational Linguistics

Koç University   *Istanbul, Turkey*
B.Sc. IN ELECTRICAL AND ELECTRONICS ENGINEERING   *2017 - 2022*

- Research Advisor: Prof. Deniz Yuret
- Artificial Intelligence Track & Digital Signal Processing Tracks
- Related Classes: Linear System Theory, Natural Language Processing, Deep Learning with Computer Vision, Random Process, Deep Unsupervised Learning, Detection and Estimation Theory

Kadıköy Anatolian High School   *Istanbul, Turkey*
SCIENCE   *2012 - 2017*

- Score: 5/5

Publications

[1] E. Acikgoz, T. Chubakov, M. Kural, G. Şahin, and D. Yuret, Exploring the State-of-the-Art Language Modeling Methods and Data Augmentation Techniques for Multilingual Clause-Level Morphology, MRL22 ST Winner

Research Experience

KUIS-AI, Koç University   *Istanbul, Turkey*
RESEARCHER   *July 2022 - Present*

- Currently working on training new Turkish state-of-the-art LLMs.
- Currently working on benchmarking Vision-Language Model capabilities.
- Attended MRL2022: Multilingual Clause-level Morphology for each task: Inflection, Reinflection, Analysis.

KUIS-AI, Koç University   *Istanbul, Turkey*
UNDERGRADUATE RESEARCHER   *November 2021 - June 2022*

- Worked on creating the new version of Turkish morphology dataset, TrMor.
- Implemented a supervised state-of-the-art Turkish Morphological Analyzer which is built on a seq2seq Transformers-based architecture.
- Worked on unsupervised Morphological Analyses search. Specifically, applied some probing tests with GPT like: polarity and segmentation.

Work Experience

Shallow AI   *Palo Alto, California*
RESEARCH SCIENTIST   *April 2022 - Present*

- Currently, working on Automatic Speech Recognition (ASR), Question Answering (Q/A) and Summarization systems.

Shallow AI   *Palo Alto, California*
RESEARCH INTERN   *April 2021 - April 2022*

- Worked on efficient backbone mechanisms to reduce memory size of Neural Networks without effecting their accuracy, which can be deployed on embedded devices.
- Implemented an efficient mobile person detection algorithm and an efficient text recognition model.

Pavotek   *Istanbul, Turkey*
Embedded Devices and Power Systems Engineering Intern   *June 2020 - September 2020*
- Designed a new Washing-Machine BLDC Motor Control scheme for a specific furniture with the driver circuit.
- Designed an efficient ELS Control Diagram for DC Motors which is used in paper machines.

Honors & Awards

1st Shared Task on Multilingual Clause-Level Morphology (MRL2022) winner in each task: Inflection, Reinflection, Analysis. (EMNLP, 2022)

KUIS-AI Fellowship for MSc. (2022)

Best Snr. Design Project Finalist (2022)

5 x Vehbi Koç Academic Honor Award (2017-2022)

Teaching Experience

Comp541: Deep Learning   *Koç University, Istanbul*
Tutor   *October 2022 - Present*
- I am one of the teaching assistant of graduate course COMP541: Deep Learning given by Aykut Erdem, in Fall'22.

Comp547: Deep Unsupervised Learning   *Koç University, Istanbul*
Tutor   *February 2022 - June 2022*
- I was a teaching assistant of the graduate course COMP547: Deep Unsupervised Learning given by Aykut Erdem, in Spring'22.

Talks & Events

KUIS-AI Open House Event   *KUIS-AI, Koç University*
Poster Session   *May 13, 2022*
- We presented our unsupervised morphological research results in the KUIS-AI Open House Event that covers VAE, Transformers, VQ-VAE based approaches.

KUIS-AI Media Team: Deep Unsupervised Learning   *KUIS-AI, Koç University*
Podcast   *April 18, 2022*
- I gave a 30-minute talk about Deep Unsupervised Learning and the class.

Skills

Programming: Pytorch, Python, Julia, C, C++, MATLAB

Electronics and Hardware: DSP, Simulink, SPICE, Microcontrollers and Sensors, VHDL

Others: Git, AWS, Slurm, Latex, BASH/Linux

Club Activities & Volunteer Work

Koç Rams   *Istanbul, Turkey*
Running-Back(RB), Full-Back(FB)   *2017-2020*
- 1 x National League Champion
- 1 x University League Champion
- 1 x Istanbul Tournament Champion

Volunteer, Vice President   *Istanbul, Turkey*
KAL Volunteers Club   *2013 - 2016*
- With a group of volunteering peers, we raised funds and arranged events for children with disabilities.