Arda Can Aras

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Education

- **Bilkent University** — Ankara, Turkey
  Master of Science in Electrical and Electronics Engineering; CGPA: 3.63 — *Jan 2022 – present*
- **Bilkent University** — Ankara, Turkey
  Bachelor of Engineering in Electrical and Electronics; CGPA: 3.25 — *Sep. 2017 – July. 2021*

Experience

- **koclab** — Ankara, Turkey
  Research Scientist — *August 2021 - present*
  - **Role**: I am currently immersed in the exploration of Graph Neural Networks (GNNs) and their applications within the scope of Natural Language Processing (NLP). My primary focus is on unraveling the potential synergies between GNNs and transformers, with the aim of enhancing traditional NLP tasks like sentiment analysis, question answering and summarization.
- **DataBoss Inc.** — Ankara, Turkey
  Research Scientist — *May 2021 - July 2021*
  - **Role**: Conducting research under the guidance of Prof. Suleyman S. Kozat, my focus lies in the exploration of time-series forecasting algorithms applied to the M5 dataset.
- **Bilkent University** — Ankara, Turkey
  Teaching Assistant — *2019 - present*
  - **CS 115**: Introduction to Programming in Python
  - **EE 212**: Microprocessors
  - **EE 486/586**: Statistical Foundations of Natural Language Processing

Publications

- **Graph Receptive Transformer Encoder for Text Classification**:
  Arda Can Aras, Tuna Alikaşifoğlu, Aykut Koç
  IEEE Transactions on Signal and Information Processing over Networks, 2022. (under review with major decision)
- **Text-RGNNs: Relational Modeling for Heterogenous Text Graphs**:
  Arda Can Aras, Aykut Koç
  IEEE Signal Processing Letters, 2023. (under review)
- **Trainable Fractional Fourier Transform**:
  Emirhan Koç, Tuna Alikaşifoğlu, **Arda Can Aras**, Aykut Koç
  IEEE Signal Processing Letters, 2023. (under review)
- **Feedforward Neural Network Based Case Prediction in Turkish Higher Courts**:
  Arda Can Aras, Ceyhun E. Öztürk, Aykut Koç
  30th Signal Processing and Communications Applications Conference , 2022.

Projects

- **semi-supervised-transformer**: Novel fine-tuning approach for transformer-based models using unlabeled data.
- **transformer-from-scratch**: From scratch implementation of original transformer paper in PyTorch.
- **streamlit-zeroshot-classifier**: Zero-shot classifier app powered by HuggingFace Transformers and Streamlit.

Honors & Awards

- **5G and Beyond Joint Graduate Fellowship** — Ankara, Turkey
  Turk Telekom & Information and Communication Technologies Authority — *May 2022 - present*
- **Graduate Scholorship** — Ankara, Turkey
  Bilkent University — *Jan 2022 - present*
- **Directorate of Research Support Programs** — Ankara, Turkey
  Scientific and Technological Research Council of Turkey — *Oct 2021 - May 2022*