ERENAY DAYANIK

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Education

- **University of Stuttgart** — **Stuttgart/Germany**
  Doctor of Philosophy, Institute for Natural Language Processing — *2018–Current*
- **Koc University** — **Istanbul/Turkey**
  Master of Science, Department of Computer Engineering — *2016–2018*
- **Middle East Technical University** — **Ankara/Turkey**
  Bachelor of Science, Department of Computer Engineering — *2010–2015*

Experience

- **Academic Researcher** — **Stuttgart**
  Theoretical Computational Linguistics Group., IMS — *July 2018–Current*
  - Research focuses on structured prediction for argumentation mining and identifying bias and improving fairness in deep learning systems.
  - **Advisor**: Prof. Dr. Sebastian Padó
- **Research Assistant** — **Istanbul**
  Artificial Intelligence Lab., Koc University — *February 2016–June 2018*
  - Research in Deep Learning applied to Natural Language Processing and Computer Vision
  - **Thesis**: Neural Components for Morphological Tagging
  - **Advisor**: Prof. Dr. Deniz Yuret
- **Teaching Assistant** — **Istanbul**
  Koc University — *February 2016–June 2018*
  - Deep Learning, Spring 2018
  - Machine Learning, Spring 2017
  - Structure and Interpretation of Computer Programs, Fall 2016, 2017
- **Software Engineer Intern** — **Ankara**
  Tubitak SAGE — *June 2014–August 2014*
  - Developed a 3DS Max plug-in to view 3D visualization of large volumes from model files
- **Software Engineer Intern** — **Istanbul**
  Airties Wireless Networks — *July 2013–August 2013*
  - Contributed to SVN to Git migration of firmwares.

Notable Projects

- MARDY: *'Modelling Argumentation Dynamics in Political Discourse'*

  Currently, I develop computational models and methods for analyzing argumentation in political discourse. The goal is to develop tools to support analysis of the possible impact of arguments advanced by different political actors.
- ReGROUND: *'Relational symbol grounding learning'*

  Within the scope of ReGROUND project, I've designed and run eye-tracking experiments. Aim was to compare the regions on the images focused by the human participants and deep learning models on Visual Question Answering task.
- Knet.jl: *'Koc University Deep Learning Framework'*

  Knet.jl is an open source Deep Learning (DL) Framework implemented in Julia. I contributed Knet by (i) developing some of the its features (ii) reimplementing architectures introduced in recently published papers and (iii) accomplishing benchmarks to compare Knet with other DL frameworks

Technical Skills

- **Programming Languages:** Python, Julia, Java, C++, C, SQL, awk, sed
- **Deep Learning Frameworks:** Proficient in: PyTorch, Knet
- **Other Software Skills:** Docker, Git, Slurm

Publications

- **Dayanik, E.,** Blessing, A., Blokker, N., Lapesa, G., Haunss, S., Kuhn, J., Padó, S. "Using Hierarchical Class Structure to Improve Fine-Grained Claim Classification", (Under Review)
- **Dayanik, E.,** Padó, S. "Disentangling Document Topic and Author Gender in Multiple Languages: Lessons for Adversarial Debiasing", WASSA 2021
- **Dayanik, E.,** Padó, S. "Masking Actor Information Leads to Fairer Political Claims Detection.", ACL 2020
- Blokker, N., **Dayanik, E.,** Lapesa, G., Padó, S. "Swimming with the Tide? Positional Claim Detection across Political Text Types", NLP+CSS 2020
- Lapesa, G., Blessing, A., Blokker, N., **Dayanik, E.,** Haunss, S., Kuhn, J., Padó, S. "DEbateNetmig15: Tracing the 2015 Immigration Debate in Germany Over Time.", LREC 2020
- Akyurek, E.*, **Dayanik, E.,***, Yuret, D. "Morphological Analysis using sequence decoder", TACL 2019 (* Equal contribution)
- Padó, S., Blessing, A., Blokker, N., **Dayanik, E.,** Haunss, S. "Who Sides With Whom? Towards Computational Construction of Discourse Networks for Political Debates.", ACL 2019
- Can, OA., Mutlu, O., **Dayanik, E.** "Team Howard Beale at SemEval-2019 Task 4: Hyperpartisan News Detection", SemEval-2019 at NAACL-HLT-2019
- Kirnap, O., **Dayanik, E.,** Yuret, D. "Tree-stack LSTM in Transition Based Dependency Parsing", CoNLL 2018 Shared Task: Multilingual Parsing from Raw Text to Universal Dependencies