

Omer Veysel Cagatan

<https://asparius.github.io>

Istanbul, Turkey

Education	Koc University , Sariyer, Istanbul Bachelor of Science Major: Computer Engineering Tracks: Artificial Intelligence, Data Analytics GPA: 3.75/4.0	Oct 2020-Present Graduation: June 2024
Publications	O. V. Cagatan. <i>ToddlerBERTa: Exploiting BabyBERTa for Grammar Learning and Language Understanding.</i> To appear in the CoNLL-CMCL 2023 Shared Task: The BabyLM Challenge (CONLL'23). O. V. Cagatan and B. Akgun. <i>BarlowRL: Barlow Twins for Data-Efficient Reinforcement Learning.</i> To appear in the Asian Conference on Machine Learning, 2023 (ACML '23).	
Under Review	O. V. Cagatan and B. Akgun. <i>On the Effectiveness of Non-Contrastive Objectives in Data Efficient Reinforcement Learning.</i> Submitted to Thirty-Eighth AAAI Conference on Artificial Intelligence (AAAI '24). Passed first phase. Anonymous. Submitted to The 18th Conference of the European Chapter of the Association for Computational Linguistics (EACL '24).	
Research Experience	Data-Efficient Deep Reinforcement Learning with Asst. Prof. Baris Akgun June 2023-Present Working on Data-Efficient Reinforcement Learning. My primary aim is to utilize representation learning methods to make more efficient agents. <ul style="list-style-type: none">Led the BarlowRL project which has been accepted into the ACML 2023. After success of the BarlowRL, we further explored the impact of different non-contrastive objectives in the SPR which is the baseline of state-of-the-art value-based agents. We shared our detailed investigations in "On the Effectiveness of Non-Contrastive Objectives in Data Efficient Reinforcement Learning" article. Non-Contrastive Sentence Embeddings with Prof. Deniz Yuret and Prof. Alper Erdogan Nov 2022-Mar 2023 Worked on developing state-of-the-art sentence embedding models which are created after fine-tuning with non-contrastive objectives. <ul style="list-style-type: none">Led this project which aimed to enhance BERT embeddings by fine-tuning it with non-contrastive objectives such as CorInfoMax and VICReg. Sentiment Analysis in Turkish with Assoc. prof. Alptekin Kupcu July 2022-Oct 2022 Worked on developing state-of-the-art Sentiment Analysis models in Turkish. <ul style="list-style-type: none">Collected and curated a large dataset to obtain the best performant model. Lastly, wrote a comprehensive literature review about Sentiment Analysis in Turkish and the results of the findings from different languages employed in Turkish.	
Teaching Experience	<i>Teaching Assistant</i> for the ENGR200, Probability and Random Variables <i>Tutor</i> for the MATH204, Differential Equations	Oct 2022-Jan 2023. Feb 2022- June 2022
Other Experience	SPARK Autonomous Car Worked as a Computer Vision Engineer in the Software Team. <ul style="list-style-type: none">SPARK is a autonomous vehicle Team that builds a car from scratch for the national competition. My primary work was the training of the Lane Detection System.	Feb 2022-June 2022
Awards	Vehbi Koç Scholar Anatolian Scholarship Program	