

# Ege Ersü

## DATA SCIENCE & MACHINE LEARNING

☎ (+44) 07933876710 | ✉ egeersu@gmail.com | 🏠 egeersu.github.io | 📄 egeersu | 🌐 egeersu

## Education

<b>The University of Edinburgh</b> Master of Science in Informatics (Cognitive Science)	67.7%	2020- September 2021	Edinburgh, UK
<b>Koç University</b> Bachelor of Science in Computer Engineering	3.42/4	2016-2020	Istanbul, Turkey
<b>University of Sussex</b> Erasmus+ Exchange (Informatics)	4.00/4	Spring 2020	Brighton, UK
<b>Rice University</b> Global Exchange (Computer Science)		Fall 2018	Houston, TX

## Skills

<b>Experienced with</b>	Python, JavaScript, Julia
<b>Worked with</b>	PyTorch, React, Pandas, NumPy, SQL, TensorFlow, Java, GCP, AWS
<b>Natural Languages</b>	English, Turkish
<b>Graduate Coursework</b>	Machine Learning & Pattern Recognition, Accelerated Natural Language Processing Machine Learning Practical, Reinforcement Learning, Algorithmic Game Theory Natural Language Understanding, Generation & Machine Translation

## Research

<b>Studying Human Compositional Generalization in Virtual Environments</b> MSC DISSERTATION   SUPERVISED BY <b>DR. CHRISTOPHER G. LUCAS</b>   📄 CODE   📄 PAPER	<i>The University of Edinburgh</i> June 2021 - September 2021
• Developed a web application for launching customizable game-based experiments and collecting behavioral data. Tested the platform by launching a custom experiment and collected more than 2200 gameplay decisions from over 250 participants. Performed EDA on the collected behavioral dataset and tested two cognitive hypotheses on human rule learning and generalization.	
<b>Position-Aware Neural Attentive Graph Networks for Question Answering</b> NLP RESEARCH   SUPERVISED BY <b>DR. HAKAN BILEN</b>   📄 CODE   📄 PAPER	<i>The University of Edinburgh</i> January 2021- May 2021
• We open-sourced the first community version of Entity-RGCN in PyTorch (De Cao et al., 2019) and used it to solve the document-level question answering dataset <i>WikiHop</i> . We further released improved versions of the model by incorporating <i>positional injection</i> and <i>query attention</i> . Our paper also includes ablation studies and specific case studies from the dataset.	

## Work

<b>Koç University Artificial Intelligence Laboratory</b> RESEARCH ASSISTANT TO <b>PROF. DENİZ YURET</b>   📄 CODE   📄 PAPER	<i>Istanbul, Turkey</i> June 2019 - Aug. 2019
• Developed an open-source package that transfers pre-trained deep learning models from PyTorch & TensorFlow to Julia. The software reconstructs each individual layer and connects them as a computational graph which can be modified, re-trained or used for inference. The package is mostly used by Julia developers to import popular models for fine-tuning, without having to implement the models from scratch. After the release I have mentored two other research assistants to maintain the project.	
<b>Miletos Co.</b> MACHINE LEARNING INTERN	<i>Istanbul, Turkey</i> June. 2018 - Jul. 2018
• Worked with the R&D team to solve the OCR task of converting images of receipts into text. Experimented with various CNN architectures using PyTorch and reported performance metrics. Also helped the team with data labelling.	