# Ege Ersu

□ (+44) 07933876710 | 🗷 egeersu@gmail.com | 🏕 egeersu.github.io | 🖸 egeersu | 🛅 egeersu | 🕈 Edinburgh

# Education

The University of Edinburgh	Distinction	2020 - 2021	Edinburgh, UK
Master of Science in Informatics			
Koç University		2016-2020	Istanbul, Turkey
Bachelor of Science in Computer Engineering			
University of Sussex		2020	Brighton, UK
Erasmus+ Exchange (Informatics)			
Rice University		2018	Houston, USA
Global Exchange (Computer Science)			

## Skills

Languages Python, SQL, JavaScript, Julia

**Packages** PyTorch, TensorFlow, scikit-learn, Pandas **Other Tools** Tableau, Apache Spark, React.js, Streamlit, AWS

**Graduate Coursework** Machine Learning & Pattern Recognition, Reinforcement Learning

Tools & Models for Data Science, Algorithmic Game Theory

Natural Language Understanding, Generation & Machine Translation

## Research.

# Studying Human Compositional Generalization in Virtual Environments CLICK HERE | MSC DISSERTATION | SUPERVISED BY DR. CHRISTOPHER G. LUCAS

The University of Edinburgh June 2021 - September 2021

• Developed a web application for launching customizable game-based experiments and collecting behavioral data. Used it to collect more than 2000 gameplay decisions from over 200 participants. Performed EDA on the collected behavioral dataset and tested a cognitive hypothesis on human rule learning and generalization.

# Position-Aware Neural Attentive Graph Networks for Question Answering CLICK HERE | NLP RESEARCH | SUPERVISED BY DR. HAKAN BILEN

The University of Edinburgh January 2021- May 2021

• Our research group 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 *WikiHop*. We further released improved versions of the model by incorporating *positional injection* and *query attention*. Our paper also includes ablation studies and specific case studies from the dataset.

## Work

#### **KUIS Artificial Intelligence Center**

June 2019 - Dec. 2019

### CLICK HERE | RESEARCH ASSISTANT | SUPERVISED BY PROF. DENIZ YURET

• 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 release I have mentored two research assistants to maintain the project.

Miletos Co. June. 2018 - Aug. 2018

### MACHINE LEARNING INTERN

• 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 cleaning and labeling.