Ege Ersu

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Education

The University of Edinburgh	2020 - 2021	*Edinburgh, UK*
Master of Science in Informatics — with **Distinction**		
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

Experienced With	Python, JavaScript, Julia, React.js, Git, Linux
Worked With	Java, C++, MySQL, AWS
Data Science & ML	PyTorch, scikit-learn, Pandas, NumPy, Seaborn, SQL
Graduate Coursework	Machine Learning & Pattern Recognition, Reinforcement Learning, Deep Learning
	Natural Language Understanding, Generation & Machine Translation
	Tools & Models for Data Science, Algorithmic Game Theory

Key Projects

Position-Aware Neural Attentive Graph Networks for Question Answering   *The University of Edinburgh*
 Click Here | Independent NLP Research | supervised by **Dr. Hakan Bilen**   *2021*
- Open-sourced the first PyTorch version of Entity Relational-Graph-Convolutional-Networks and used it to build a Question Answering system. Reduced the original memory requirement from 1TB to 23GB by optimizing the graph generation algorithm and training scripts. Incorporated positional injection and query attention into our model to increase accuracy.

Building Customizable Virtual Environments for Behavioral Data Collection   *The University of Edinburgh*
 Click Here | MSc Dissertation | supervised by **Dr. Christopher G. Lucas**   *2021*
- Developed a web application for launching online game-based experiments and collecting behavioral data. Tested the application by collecting more than 2000 gameplay decisions from over 200 participants. Used React for the UI, Game Logic & Animations. Posted JSON to our lab's REST API endpoint. Used Python & Pandas for Data Wrangling and Analysis.

Work Experience

The University of Edinburgh, School of Informatics   *Sept 2021 - Dec 2021*
Graduate Researcher | Supervised by **Dr. Christopher G. Lucas**
- We are extending my MSc Project to be submitted to *CogSci2022* as a conference paper. As the first author I'm responsible for improving the web application, conducting more rigorous statistical analysis and collecting more data.

KUIS Artificial Intelligence Center   *June 2019 - Jan. 2020*
 Click Here | Research Assistant | Supervised by **Prof. Deniz Yuret**
- Developed an open-source package that transfers pre-trained 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 ML models for fine-tuning, without having to implement them from scratch. I also mentored two research assistants who joined the project as developers.

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. Trained various CNN architectures on AWS using PyTorch and reported performance metrics. Also helped the team with data cleaning and labeling.