EGE HOSGUNGOR

Senior Robotics Data Scientist

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*London/ United Kingdom*

| EXPERIENCE | | |
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| Senior Robotics Data Scientist | **Ocado Technology** | 2022 - Present |
| * Created Data-Driven and Model-Driven Systems to improve Ocado’s operations of bots. * Led development of a hybrid Crash Detection System using **computer vision** and **accelerometer data**; used **YOLO** and **RT-DETR** models for **object detection** and **pose estimation**, resulting in 70% more crash detections and reduced reaction time. * Led development of a **Wireless** **Signal Forecasting** system by combining **machine learning** and empirical models with proprietary bot **signal data** to predict network coverage and anticipate warehouse design issues, reducing potential multi-million-dollar losses per CFC. * Designed and run **research experiments** for developing an iterating on new techniques. * **Causal Inference** on Software Release Strategies with **A/B Testing** Experiments. | | |
| Reinforcement Learning Engineer | **Dcipher Analytics** | 2020 – 2022 |
| * Implemented RL algorithms / environments for NLP domain: Sentiment Analysis on stock markets **Gym, TF, Ray and GCP.** * Directed all phases of a traditional machine learning project focused on predicting avalanche risks, utilizing domain adaptation techniques to analyze over 200 historical datasets from different domains. | | |
| Software Engineer | **KARMA Lab Immersive Technologies** | 2018 – 2019 |
| * Coordinated KARMA Lab’s 3 VR/AR/MR projects: KU-TWIN, Isles of Emotion, Psychosis * Led a group of 15 people from different backgrounds including professionals, PhDs, and grad students. * Designed a comprehensive “**Digital Twin**” VR simulation by implementing advanced photogrammetry techniques using the Unity Engine. | | |

| EDUCATION | | |
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| MSc Advanced Computer Science | **University of Sussex** | 2019 – 2020 |
| * Dissertation: "Pandemic Simulation with Reinforcement Learning" * Area Courses: Machine Learning/ Engineering Reliable and Scalable Project / E-Commerce Systems  Distinction, First Class Honor (4.0 GPA) | | |
| BSc Mechanical Engineering | **Koç University** | 2014 – 2019 |
| * Senior Project: "A Haptic Feedback Glove for Virtual Reality" **Best Engineering Project Award.** * Area Courses: Rocket Propulsion / Finite Element Analysis /Corporate Dynamics for Engineers | | |

| PROJECTS | | |
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| * SMSBOTU - SaaS product that brings internet access via SMS for the people who don’t have reliable internet connection but still in the GSM coverage. Currently 300+ users and monthly 20 beta testers. **(Langchain, OpenAI API, Fastapi, GCP Cloud Run, Firebase, Nextjs, Tailwind)** * Competed in [5 different Kaggle Competitions](https://hosgungor.com/index.html#projects) (details can be found in the portfolio).  (Numpy, Pandas, Sklearn, XgBoost, LightGBM, Keras, Torch, Tensorflow Matplotlib, Seaborn)  * [Pandemic Simulation with Deep Reinforcement Learning](https://github.com/Hsgngr/Pandemic_Simulation) Training RL agents in a continuous action space and continuous state space pandemic outbreak simulation to measure the success rate of social distancing strategies by using RL techniques. The environment had a showcase in Unity’s Webpage.  (TF-Agents, Gym, TensorFlow, AWS EC2, Unity)  * Developed an innovative  [Vibrotactile Hand Interface for VR](https://youtu.be/UaCITyHXu8I) earning the **Best Engineering Project Class of 2018-2019 Award**. Showcased the prototype at Europe's premier VR event, attracting over 2,000 industry attendees in Amsterdam. (**Computer Vision, Hand-Tracking, Arduino, C, 3D printing, Hardware Design, Unity, User Experience, Simulation)** * [Academic Article Classification (NLP Project)](https://github.com/Hsgngr/dcipher-nlp-challenge/blob/master/REPORT.md) **(BERT, TF-IDF, Embeddings, FastText)** | | |

Work Eligibility**:** Eligible to work in the UK and Turkey.