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EDUCATION

University of Sussex **MSc Advanced Computer Science** Sep 2019 – Oct 2020

- Pandemic Simulation with Reinforcement Learning, dissertation project for master's degree
- Area Courses: Machine Learning/ Engineering Reliable and Scalable Project / E-Business and E-Commerce Systems
- Expected GPA: **Distinction 1:1**

Koç University **BSc Mechanical Engineering** Sep 2014 – June 2019

- Senior year project: A Haptic Feedback Glove for Virtual Reality. Got **A+ and Best Senior Project Award**.
- Area Courses: Rocket Propulsion / Finite Elements Analysis/Machine Design, Corporate Dynamics for Engineers
- **Research experience** in 5 different labs: Immersive, Design, Manufacturing and Automation, Nanotechnology.

EXPERIENCE

Project Lead Developer *KARMA Lab Immersive Technologies* Jan 2019 – Jun 2019

- Obtained **team leading experience** with a group of 15 people including professionals, post grads and grad students.
- Gained expertise in creating projects with **Arduino**, **Leap Motion** and **Computer Vision** with **Infrared Cameras**.
- Supervised the KARMA Lab's 3 VR/AR/MR projects: KU-TWIN, Isles of Emotion, Psychosis

Unity Developer *KUAR Research Center for Creative Industries* Oct 2018 – Jun 2019

- Created a **"Digital Twin"** of campus for VR by utilizing **photogrammetry** techniques, Modelling and Unity.
- Managed a team which includes architects, product designers and software developers.
- Obtained a deep care about developing, releasing and maintaining **high quality code**.
- Learned to use version control **Git** with **large-scale simulations up to 1TB**.

Summer Intern *BSH Hausgeräte* Aug2018 – Sep 2018

- Worked in Cooling Systems-Functional Development & Testing R&D Center of Refrigeration
- Diagnosed an optimization on manufacturing process of refrigerators cover hinges.

Summer Intern *Ford Otosan* Aug 2017 – Sep 2017

- Worked in "Engine and Power Train Manufacturing" Department R&D in İnönü Truck Factory.
- Reverse engineered the competitors' truck engines and compared the results with Ford Ecotorq Truck Engine.

Undergrad Research Assistant *Manufacturing and Automation Research Center* Oct 2016 – Nov 2017

- Implemented a **PID controller** for 2D Inverted Pendulum with **MATLAB Simulink**
- Reverse engineered a Hexacopter drone and modelled on **Siemens NX**

PROJECTS

- A Deep **Recurrent Neural Network (RNN)** Model for predicting the effect of COVID-19 on Stock Market prices, ongoing classification project with a team of finance and economics postgrads.
- Pandemic Simulation with Deep Reinforcement Learning. The project is about training agents to make them learn survival strategies in an epidemic outbreak such as social distancing and self-quarantine. **TensorFlow** is used as backend and trainings are done on cloud using **AWS EC2** instance. The **Unity** added the project to their showcase and the project will be public soon. Moreover, the thesis is planned to publish after Oct 2020.
- A Binary Image Classification Machine Learning Project in Postgraduate Machine Learning Module. A **Random Forest Classifier** model has been chosen and implemented with **Python** using **Sklearn**. Imbalance, unlabeled data, domain adaptation and confidence annotation were some of the challenges that I have been faced. **Finished at the top** of the leaderboard with 82% accuracy in the test-set.
- A Vibrotactile Hand Interface for VR was final year project of bachelor's degree. The project aimed to create sense of reality by giving vibrotactile feedback to hand. The hardware has been created using 10 **ERM** vibration motors, **Arduino**, **C, Leap Motion** and **HTC VIVE** and **3D printing**; software has been developed with **C#** in Unity. The project got **Best Engineering Project Class of 2018-2019 Award** and it is presented in **VRDays Exhibition** on Amsterdam afterwards.
- A Cross Platform Multi-User Real Estate Application is created using **React Native** and **JavaScript.** The **MongoDB** is used as database, **Firebase** used for Authentication and the **REST API** is implemented with **Express.js** in **Node.js**.
- A web-based, multi-user-payment service using **J2EE** technologies. 3-Tier Architectural pattern has been utilized: **Java Server Faces** for user interfaces, **Enterprise Java Beans** for business logic and **Form-based authentication** for security. All project has been done without any extra libraries, from the scratch. The project has aimed to provide a strong fundamental of Web Services. The application deployed on **AWS** Instance at the end, got A+ from the course.

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