

**MINJAE KANG**  
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## EDUCATION

**University College London (UCL)**, London, UK Sep 2017 – Present  
MEng Computer Science; Fourth Year; Expected Result: First or Upper Second  
Completed Modules: Introduction to Deep Learning, Statistical Natural Language Processing, Information Retrieval and Data Mining

**Abbey College Cambridge**, Cambridge, UK Sep 2014 – Jun 2016  
A-Levels: Mathematics (A\*), Further Mathematics(Mechanics modules from M1 to M5) (A), Physics (A)

## RELEVANT EXPERIENCE

**Deep learning Research on Audio-to-Motion generation**, London, UK Oct 2020 – Mar 2021

- Trained a deep learning model to generate facial motion expression predictions as outputs from human speech inputs using Tensorflow and Keras.
- Used a pretrained motion autoencoder to map human speech to a facial motion with Gated Recurrent Unit(GRU) and Fully Connected layers.
- Collected video data and extracted its features using a facial behaviour analysis toolkit, Openface.
- Preprocessed the data and visualised the results with Python Pandas and Numpy on Jupyter Notebook.

**Data Engineer Intern at Balaan; online shopping start-up**, Seoul, Korea June 2020 – Oct 2020

- Built a data pipeline that collects business data using AWS Cloud S3 to serve across the firm.
- Automated the Google Analytics data retrieval process and its data transferring process to the AWS cloud.
- Created visualisations with AWS Athena and Quicksight for the company decision makings.
- Automated the data cleaning, mapping, and processes with the relevant crawling tools and MongoDB.
- Developed a set of utilisation tools to assist the data management, maintenance and crawling.
- Adapted to the company's OKR culture and learned about goal setting and priority.

**Cross-department Smart Classroom IoT Project**, London, UK Jan 2020 – April 2020

- Collaborated with students from other departments to deliver a smart classroom prototype that autonomously controls a classroom environment(temperature, brightness, and humidity) and monitors the security of the room.
- Designed and built an Internet of Thing (IoT) system with a CC3200 launchpad and environment sensors.
- Connected the system to IBM cloud and developed a data pipeline and a dashboard UI with a flow-based programming tool, IBM Node-Red.
- Analysed and visualised the data collected with Python Pandas and Numpy.
- Led a team of four; allocated tasks according to one's strengths and capabilities.

**Web App Development Project for Author Murray Dance Studio**, London, UK Oct 2018 – April 2019

- Collaborated with Author Murray dance studio in the US and tailored technological and practical services
- Developed a web application using Express(Node.js) with client required functionalities.
- Captured and collected movement data using Microsoft Kinect and generated 3D dance simulation videos.
- Hosted MongoDB database and the application on Microsoft Azure.
- Led the team; analysed, broke down and allocated tasks based on capabilities with proper time management.
- Liaised with clients in different time zones and coped with changing requirements under time pressure.

**Chatbot Workshop**, Seoul, Korea Aug 2018

- Created and hosted a chatbot using Django, Pythonanywhere, and Kakao's API.
- Responded successfully according to specific text inputs and utilised nested dictionary data type to build hierarchy structure relation.

**Private A-levels Physics Tutor**, Seoul, Korea July 2016 – August 2016

- Delivered one-to-one teaching sessions 12 hours per week.
- Prepared all the teaching materials and handled admin tasks, for example, renting a classroom.
- Adapted different approaches to improve students' results according to their strengths and weaknesses.

## SKILLS

- **Programming Languages:** C/C++, Python (NumPy, Pandas, Scikit-learn, TensorFlow/Keras) JavaScript, Node.js(Express), Amazon Cloud Services (S3, Athena, Quicksight), MongoDB, SQL, GitHub
- **Languages:** Korean (native), English (fluent), Chinese(beginner)
- **Interests:** Piano(self-taught), Gym, Movies, Games, Technology(UCL TechSoc)