SOOMIN MYUNG

Graduate Visa (UK, until 31 Dec 2025)
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EDUCATION

The University of Manchester   **Manchester, UK**
MSc Data Science, Distinction   Sep 2022 - Oct 2023

- **Modules:** Programming in Python for Business Analytics, Statistics and Machine, Understanding Databases, Applying Data Science, Understanding Data and their Environment, Environmental Monitoring and Modelling, Spatial Ecology, Measuring and Predicting 2, Dissertation

The University of Nottingham   **Nottingham, UK**
MSc Computer Science (Artificial Intelligence), Distinction   Sep 2020 – Oct 2021

- **Modules:** Machine Learning, Systems and Networks, Databases, Data Modelling and Analysis, Games, Research Project in Computer Science (Artificial Intelligence), Research Methods

Seoul National University   **Seoul, South Korea**
BA Economics, 3.83/4.3 GPA (94.30%)   Mar 2006 – Aug 2014*
* Mandatory military service in South Korea (2007 – 2009), study for Public Administration Exam (2010 – 2012)

- **Core Modules:** Microeconomics, Macroeconomics, Econometrics, Statistics for Economists, Mathematics for Economics, Agricultural Firm Management, Market Economy and Food Policy
- **Scholarship:** Superior Academic Performance (2006, 2007), the top 0.5% of the year in the degree course

SKILLS

- Machine Learning
- Convolutional Neural Network (CNN)
- Exploratory Data Analysis (EDA)
- Data Pipelines
- Scikit-learn
- R
- MongoDB
- Macroeconomics
- Deep Learning
- XGBoost
- Data Visualisation
- Python
- NumPy
- MySQL
- PyMongo
- Econometrics
- Artificial Neural Network (ANN)
- Data Analysis
- Data Pre-processing
- TensorFlow
- Pandas
- NoSQL
- Microeconomics
- Statistics

PROJECTS

CNN for CIFAR-10 image classification (Python) | GitHub   **2023**

- A project to design a CNN model to see how hyperparameter tuning can improve classification performance.
- Designed a 5-layer CNN model for image classification with hyperparameter tuning (number of layers, number of filters, batch size, epoch, kernel size) and batch normalisation.
- Referenced journal articles to get ideas for initial model settings and hyperparameter tuning.
- Enhanced model accuracy from 69.8% to 81.6%.

Amazone Shopping Mall (MongoDB, PyMongo) | GitHub   **2023**

- Designed a NoSQL DB system for a shopping mall to efficiently manage all the stages of shopping.
- Designed schemas to take advantage of the flexibility of NoSQL and decided whether to use referencing or embedding for each schema, depending on whether the schema was write- or read-intensive.
- Built data pipelines in PyMongo to support features such as product browsing, recommendation, shopping basket, order, dispatch of products and drivers, inventory management, and past orders.

Rossman Sales Prediction (Python) | GitHub **2023**

- Given a dataset, the project was to train and test a sales forecasting model for a drugstore franchise.
- Performed Exploratory Data Analysis (EDA) to discover the characteristics (data type and distribution of each feature) and any issues (missing values, duplicates, outliers, multicollinearity, and unit inconsistencies) of the dataset.
- Pre-processed the data, such as missing value imputation, one-hot encoding for categorical variables, and introducing new variables to better represent and use the information in the dataset.
- Performed SHAP value analysis to see each feature's contribution to sales prediction for feature selection and further business insights.

Monopoly (MySQL) | GitHub **2023**

- Designed a MySQL DB system to make a Monopoly game using triggers and procedures.
- The system gets a dice number, it automatically proceeds the game and controls the game/player status (turn, budget, tile bonus, properties, bankruptcy, etc.) until there is only one player left in the game as the winner.
- Data normalisation for efficiency and to avoid anomalies.

WORK EXPERIENCE

Data Consultant, DATA70202 Course **England**
Rail Growth Limited, Consultancy Feb 2023 - Jun 2023

- Conducted research to estimate the potential carbon emissions reductions by a modal shift from 100% road truck transportation of deep-sea containers to rail transportation between Sohar and Muscat in Oman.
- Collected data from the European Commission, Eurostat, OECD, World Bank, EEA, and Defra to estimate the potential reduction in externalities and further justify the modal shift.
- Developed own methods to properly estimate various kinds of externalities using only reliable data within limited data availability.

Project Manager, Full-time **South Korea**
Korea Energy Technology Evaluation and Planning, Government Agency Nov 2017 - Dec 2018

- Supported government energy technology policy project management.
- Held meetings for project selection, audit, and evaluation.
- Worked on government reports for all relevant tasks.

Assistant Budget Manager, Full-time **South Korea**
Korea Rural Community Corporation, Government Agency Apr 2014 - Dec 2014

- Supported government budget management using Excel and SAP.

OTHER ACTIVITIES

Coursera | Certificates **2020 - Present**

- Data Modelling in Power BI, Microsoft
- NLP with Classification and Vector Spaces, DeepLearning.AI
- Fundamentals of Visualization with Tableau, UC Davis
- C++ For C Programmers, UC Santa Cruz
- C for Everyone, UC Santa Cruz

Korea Information Technology Academy **2019**

- Python, Java, HTML, CSS, Database, MySQL

US Army, Yongsan Garrison, South Korea **Aug 2007 – Jul 2009**
Korean Augmentation to the United States Army, Driver

- Served as a driver for the chief of Air and Missile Defence Division (AMDD).