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Suzhou Industrial Park, Suzhou, Jiangsu Province, China

EDUCATION

10/18-07/21

University of Birmingham, UK

BSc in Artificial Intelligence and Computer Science (GPA: 4.0)

Degree: Bachelor of Science with Honours, Class I

09/17-05/18

Kaplan-University of Liverpool, UK

Foundation in Science and Engineering

*Modules: Physical Sciences, Algorithms, Programming and Data Representation,
Mathematics for Science and Engineering*

RESEARCH EXPERIENCE

11/20-05/21

Final Year Project

Description: Designed a deep learning model that uses neural network and C4.5 decision tree to deal with a classification task of waste sorting.

Duties:

Designed structure of the model including neural network, decision tree and other components;

Image data collection and data pre-processing;

Coding, debugging, training and testing the model using Pytorch;

Summarised the result of the experiment;

Literature review and report writing.

01/20-04/20

Java Team Project

Description: Designed a video game based on JavaFX, which supports hand gesture recognition to control players. The game has multiplayer mode and single-player mode.

Duties:

Designed User Interfaces(scenes, buttons and events, media, HP/XP bars etc.);

Worked on Single player mode and database, involving QLearning algorithm to train the computer player

01/20-04/20

Principal Component Analysis (Independent Project)

Description: Projected high dimension dataset on a low dimensional space by applying PCA;

Realized matrix computation and visualization of data distribution by using MATLAB.

Duties:

Dataset pre-processing including removing redundant data attributes, normalization and dividing data into training set and test set;

Found the covariance matrix, eigenvectors, and eigenvalues;
Projected training set on the first three principal components;
Plotted data on the three-dimensional space;
Repeated the process for the test set and compared the result.

10/19-12/19

Software Engineering UML Analysis (Team of seven)

Description: Used UML method to design an app that can handle users' sleep problems and wrote a report which is based on UML diagrams.

Duties:

In charge of the non-functional requirements, use case diagram, class diagram including noun/verb analysis and responsibility-driven analysis, sequence diagram, one of the component diagrams and deployment diagram;

Did the tradeoff of the architecture and designed the prototype of our app.

01/19-03/19

Maze Navigation and Mapping (Team of two)

Description: Developed a program (java, Lejos) that enables the robot to navigate through a random maze and to map the maze as it goes along.

Duties:

Built the robot;

Designed a class which stores the maze information (occupied, danger zone and accessible coordinates) using a 2D array;

Designed a class which stores the robot's current position and heading including the getter and setter methods;

Designed a class of depth-first search tree structure. A node of the tree indicates an available position that the robot can traverse;

Designed the main class which is a while loop for the robot to explore the maze and to find a path which can go back to the original position;

Integrated the above classes.

10/18-12/18

Rescue line (Lego EV3, Team of two)

Description: Developed a program (Java, Lejos) that enables the robot to follow a black line.
Developed our robot system to make certain actions when it detects some coloured-tape signals.

Duties:

Built the robot including wheels, color sensors and other parts;

Wrote the code which enables robot movement and rotations;

Wrote the code of how the robot follow the black line without exceeding its boundary, which includes the strategy of how the robot travel through curve line and junction;

Wrote the code related to color sensors and how the robot acts in terms of different color signals.

International Achievement Bursary (GBP 1,500), School of Computer Science, UoB 2020-2021
International Achievement Bursary (GBP 1,500), School of Computer Science, UoB 2019-2020
International Achievement Bursary (GBP 3,000), School of Computer Science, UoB 2018-2019

SKILLS

Programming: Python, Java, MATLAB, Haskell, C, HTML, CSS

English: fluent in the study and daily use

Chinese: Native Speaker

Other interests & Hobbies: cooking, astronomy, gaming and classical music