

Qiwen Deng

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Education

2018-2022 University of Edinburgh Artificial Intelligence with Computer science

Courses : Cognitive Science, Computation Logic, Reasoning and Agent , Functional Programming , Probability , Object Oriented programming , Algorithm and Data Structure , Software Engineering , Computer Architecture , Learning , Vision and Robotics , Data and Analysis

2016-2018 Brockenhurst College

Grade : A*A*AB

A Levels : Math, Further Math, Computer Science, Physics

2016 IELTS

Score:6.5

Projects

Learning: Classifications

03/2020

Apply the Machine Learning knowledges on Matlab and python (PCA, SVM) train the high dimensional data, and use neuron network (ANN, CNN) to classify different types of frogs and other animals, amend the parameters of the model to achieve the optimal. Master in agglomerative hierarchical clustering, use the data from BNC, applied 3 linkage function to do the clustering.

Vision and Robotics: Simulate Robot Arms

11/2020

Made a 3 joint robot arm with ROS, OpenCV and Gazebo. In this simulation, we capture 2 image of the robot arm from 2 cameras to estimate the joint angles and the target object location , using open-loop control, we move the end-effector to the desired position.

Personal Project: Face Recognize APP

04/2019

Eigenface and Fisher is used , just for helping my professor who has got a prosopagnosia. App is running on Android , it can take photos and store it , then recognize the human face one face at a time. Under the testing environment, we can have 50 faces in the database with 90% accuracy of recognize the faces.

Software Engineering: autonomous drone

09/2020

Use UML to design static Model and implement with java, control the Drone (direction, steps, avoid no-fly-zone) collect the data from the sensors, and produced a Software structure introduction. Use GeoJson, heatmap to visualize the air-quality data, and did several unit tests to ensure the correctness of the codes.

Algorithms : Board game and TSP

03/2020

Using Haskell developed a board game, and serval algorithms (BFS, DFS, greedy, minmax) applied to support the AI to play games with human. Use Python with some heuristic algorithms (two opt, A star, annealing) to solve the TSP problem, amending the parameters (iteration times, study speed, etc.) to produce the optimal model.

Project: Evolutionary Reinforcement learning

On-going

Apply Evolutionary algorithm(Genetic algorithm) with reinforcement learning.s

Work Experience

Teaching support

University of Edinburgh

2020.01- Now

Hold tutorial sessions, and mark the exams for 1st, 2nd and 3rd year students

AI engineer Huawei Technology C.O. Ltd.

2020.04 – 2020.08

Participated in two important projects. Optic Fiber Sensing: As an AI algorithm engineer, mainly responsible for optimize the model and data pre-processing. Project 2215: weak network user identification, fully responsible for video frame labelling. Using computer vision technique, implement the target detection algorithm to tag the video frames to detect whether any second of this video is now jamming, achieved true positive rate over 90%.

Other

Competition : BPhO Bronze, BMO Merit, 9th in the Team math Challenge(south division). (2018.01 for all of 3)

Leisure : Duke of Edinburgh Award- silver , debate, badminton, cooking , Karting , gym , Soviet jokes