

YIYIN JIANG

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EDUCATION

Indiana University Bloomington

August 2020 - December 2022

Master of Science in Data Science

Shanghai University of Engineering Science

September 2016 - June 2020

Bachelor of Engineering in Computer Science

RELEVANT COURSES AND SKILLS

Introduction to Quantum Computing, Computer Vision, Applied Machine Learning, Elements of Artificial Intelligence, Algorithm Design and Analysis, python, TensorFlow

EXPERIENCE

Intel Asia-Pacific Research & Development Ltd

May 2021 - July 2021

IOTG Software Intern

- Applied nltk to original comments from a questions-answers system and calculated the probability of a word, a tag and a tag given a word in a sentence database. Improved tag specific parts in sentences by writing robust regular expressions to match paradigms.
- Implemented AdaBoost to improve the accuracy of the neural network model which consisted of a hierarchical recurrent dual encoder and a latent topic clustering by increasing weights on comments including correctly recognized parts.

PROJECTS

Quantum Neural Networks

February 2022 - April 2022

- Defined a small quantum neural network which was implemented by setting a classic perceptron in deep learning to a unitary. The output was formed as the combination of a sequence of completely positive layer-to-layer transition maps.
- Each data sample was specifically able to be re-accessed during the training step. Analogous to the cost function, the fidelity was the sum of the product among a pure and mixed quantum state.

Betsy Game

October 2020

- Imposed restrictions based on Betsy game rules. Generated a string storing the positions of roles in game and applied a proper heuristic function to evaluate a current state.
- Implemented MiniMax algorithm according to the results of heuristic function and increased iterations if necessary to find an optimal solution to the next move.

Expression recognition based on deep learning and feature fusion

February 2020 - April

2020

Undergraduate Research

- Extracted deep learning features through trained VGG19 neural network by TensorFlow.
- Applied local binary pattern to images to calculate texture features.
- Labeled 68 positions on the face by Dlib and calculated geometric features. Implemented a random forests classifier to train data with combined three types of features.