

Jiahe Xu

Email: xjh15971488646@163.com | Tel: (+0086)15971488646

EDUCATIONAL BACKGROUND

- **Jilin University** 09/2016 - 07/2020
College of Computer Science and Technology, **Tang Ao-qing Honors Program in Computer Science**
- **Cumulative GPA: 89/100**
- **Massachusetts Institute of Technology** 08/2019
2019 MIT Machine Learning & Artificial Intelligence Short Course

RESEARCH & PROJECTS

Research on Facial Expression Recognition

- Research Assistant* *Dept. of EE, Tsinghua University* *07/2019-09/2019*
- Conducted research on two methods for realizing facial expression recognition: depth neural network and convolution neural network.
 - Analyzed algorithms of two methods and summarized the advantages and disadvantages, through reading references such as 'FaceNet A Unified Embedding for Face Recognition and Clustering', 'OpenFace A general-purpose face recognition', 'Deep Face Recognition', and so on.

Face Recognition System

- Research Assistant* *Dept. of EE, Tsinghua University* *07/2019-09/2019*
- Implemented a face recognition system which is able to locate and track face in a video stream, and then identify the face image according to the features of known faces in database. The system is able to display the name of the known person. Improved and implemented the algorithms used for face detection, tracking and recognition.

Machine Learning for Data Analysis

- Conducted data classification with various machine learning and feature selection algorithms. Implemented separate classification of different types of features, and then selected the best validation model through cross validation

LEGO Segway & Ball-bot

- Developed a reliable control system for Segway and Ball-bot. Applied LQR method and Kalman Filter for optimization. Implemented a Python controlling program running on robot.

New Fire-fighting Robot

- Utilized raspberry pi to control various parts of the robot car to achieve the functions of extinguishing fire and saving people.
- Learned algorithms of computer vision and machine learning.

Intelligent Energy Saving Lamp System

- Designed and implemented an intelligent energy-saving lamp system, which enables the administrator to view the on-off status of the lamps online, and to turn the lamps on and off.

Network Path Planning System

- Implemented a program to find the best path between two points in a dynamic network. Solved the problem with the knowledge of graph theory and data structure by using C++.

PROFESSIONAL SKILLS

Programming Languages: C/C++, Java, Javascript, Python, Matlab, PHP