

# Sicheng Wang

Room 524B, Zijing #2, Tsinghua University, Beijing, China, 100084

(+86)18810701659 wang-sc17@mails.tsinghua.edu.cn

## EDUCATION

Department of Automation, Tsinghua University, China

Aug 2017-Jul 2021

B.E. in Automation, GPA: Major: 3.86/4.00

Overall: 3.80/4.00

Ranked 20/183

Core Courses: Probability and Statistics(98) / Computer Principles and Applications (98) / Data Structures (92) / Signals and System Analysis (92) / Digital Electronics (92) / Computer Languages and Programming / C++Programme Design and Training / Digital Image Processing(92) / Numerical Analysis and Algorithms(98) / Computer Networks and Applications / Foundation of Artificial Intelligence

## RESEARCH EXPERIENCES

**Project: Semi-supervised Sentiment Analysis of Danmu (video comments) | Team Leader Dec 2018 – Mar 2019**

Advisor : Linxuan Zhang, associate director of the Institute of System Integration, Tsinghua University

- Segmented the Chinese video comments into words and obtained emotion labels based on a Chinese common words emotion database.
- Calculated the TF-IDF of each word and selected the key words of Danmu which tend to be new network terms.
- Applied the LSTM model and implemented self-training algorithm as a semi-supervised approach to predict the emotion of the extracted keywords.

**Project: Prediction of Remaining Life of Trains | Research Assistant**

May 2019 – Jul 2019

Advisor : Linxuan Zhang, associate director of the Institute of System Integration, Tsinghua University

- Experimented different ways to sample the data and decided which way is effective by using PCA to reduce the dimensions and comparing the clustering effect of K-means algorithm.
- Introduced the element-wise attention gate to the LSTM model to improve the regression performance.

**Project: Image classification on Fashion-MNIST dataset | Research Assistant**

Sept 2019 - Oct 2019

- Built GoogLeNet and ResNet models to classify the images in Fashion-MNIST dataset.

**Project: Mountain Problem Car in Gym environment | Research Assistant**

Oct 2019 - Nov 2019

- Used Q-Learning method to deal with the MountainCar-v0 problem and MountainCarContinuous-v0 problem.
- Built DQN model to deal with the MountainCar-v0 problem.

## AWARDS

Philobiblion Scholarship (2 among 183)

Best Rookie Award in the 37th Challenge Cup of Tsinghua University (16 among 784)

The First Prize of Non Physical Professional Group A in the 35th National Physics Competition of College Students

## ACTIVITIES

**The Publicity Department of the Student Union**, Automation Department, Tsinghua University | member Aug 2018 - Jul 2019

- Designed the key chain for the freshmen
- Participated in the interview, data arrangement and made the countdown poster of the Student's Day
- Edited and produced the promotion video for the sports meeting held by three departments

**"robots in my heart"- service robot survey team | Team Leader**

Aug 2018

- Created and organized the team to investigate the service robot technology and business model of CloudMinds Company in Beijing
- Investigated people's understanding and acceptance of service robot through street interviews and questionnaires

## SKILLS

- Solid expertise in Python, C++, C#, MATLAB
- Experienced in Verilog HDL, Assenmbly Language
- Languages: Mandarin Chinese, English  
Proficient in English listening, reading, speaking and writing  
TOFEL: 98 (R:29,L:27,S:21,W:21)