Dear teachers of Berkeley College of Tsinghua University:

Hello!

First of all, thank you for reading my personal statement. I am Yang Jiaxun, a 2017 level undergraduate majoring in software engineering of Nanchang University, and I am sure to obtain the qualification of postgraduate recommendation of our university. Below, please allow me to further introduce myself from the following four aspects: academic background, research interests, personal advantages and disadvantages, and plans for future study and research work:

1、 Academic background

1. Strong learning ability. During my undergraduate course, I ranked 1 / 440 (0.2%) in the first five semesters of my major, with a GPA of 3.67/4.0. There are 58 courses in total, including 96 points for advanced mathematics, 91 points for English courses, 92 points for computer programming courses, and more than 90 points for 26 courses. Cet-6:481 scores.

2. Honor and competition. I have been awarded the special scholarship and national inspirational scholarship of Nanchang University for two consecutive years with the first ranking, and have been awarded the titles of "Pacemaker to Merit Student of Nanchang University", "Merit Student of Nanchang University" and "excellent student cadre of Nanchang University" for many times. Solid mathematical foundation, good programming thinking. I wrote more than 500 questions in leetcode, POJ and other online test system, with good program design and ability. I won the national second prize of the 2019 China "Ai +" innovation and entrepreneurship competition, the national second prize of the 2019 Blue Bridge Cup national software and information technology competition, the national third prize of the 10th Blue Bridge Cup personal competition, and the national software electronic professional software design Certificate of accountant.

3. Solid research foundation, complete engineering experience and good research potential. The scientific research achievements are as follows: a national innovation and entrepreneurship training program for college students：《a speech rehabilitation training platform for deaf and mute children based on artificial intelligence》. A national patent:《a quantitative evaluation method for the quality of imitation pronunciation of hearing-impaired children was developed》 . Software copyright: 《speech rehabilitation training system for deaf and mute children》.

During the undergraduate period, I have two research projects, one is anchor fitted: feedback driven object detection anchor arbiter. This arbitration model guides whether to modify the anchor by making full use of the small object and the scale loss of anchor as the feedback information; at the same time, by dynamically

adjusting the size of the inappropriate anchor, the anchor makes the small object more compact and strengthens the learning of the small object. It basically solves the problem that the IOU of GT box and anchor is too small and the proposal is lost due to improper anchor, and provides more excellent anchors. Anchorfitted, as an implicit data enhancement method, can detect small objects end-to-end and improve the detection performance of small objects. The experimental results show that when res-50-fpn is used as the backbone, the performance of the proposed arbitration model is 1.2mAP, 1.3sAP, 1.1map and 1.2sAP higher than that of retinanet and faster r-cnn, and anchorfitted hardly needs any additional computation.

The other is the speech rehabilitation training platform for deaf mute children. A quantitative calculation method for the quality of monosyllabic imitation of hearing-impaired children was developed. This model can accurately calculate the similarity score and multi-dimensional accumulation of initials, vowels and tones of each tested word and imitated word by integrating three distance graphs of Chinese pinyin initials and pronunciation methods, vowel pronunciation patterns and pronunciation structures, and pitch similarity distance graphs which combine the pronunciation positions, methods, mouth patterns and structures of deaf mute children Points. Under three different test conditions, the accuracy can reach 95.2%, 96.2%, 97.3%.

2、 Research interests

In terms of scientific research, I have a strong interest in the direction of computational photography and 3D vision, and I would like to choose this direction for graduate students in the future. I have a preliminary research on CNN, r-cnn, retinanet, fast r-cnn, fast r-cnn, sppnet, snip, sniper and tridentnet, and I have sufficient confidence and courage to learn it well.

3、 Future study plan

1. I will seriously study professional courses, and through reading a lot of literature, I will have an in-depth understanding of my research field and improve my knowledge structure.

2. Learn to write standard papers, communicate with teachers and senior brothers and sisters, learn and consult with them, improve their own scientific research and code level as soon as possible, and help teachers complete scientific research tasks.

4、 Personal advantages and disadvantages

My advantages are:

1. Studious and attentive;
2. Strong learning spirit, willing to spend time and energy to study some problems deeply, like to consult and discuss with others;
3. Good English reading ability, good health, like exercise, strong resistance.

My shortcomings are:

1. Vision still needs to be expanded, so I am eager to join your sudden laboratory to learn and broaden my vision.

5、 Acknowledgements

Finally, thank you again for reading my personal statement! I know that my ability is still lacking, but my heart of study is urgent and powerful! Berkeley College of Tsinghua University is my ideal place for further study! I hope I can get your advice from my teacher during my postgraduate period, so that my postgraduate life won't have regrets because of my efforts.

I sincerely hope that you can give me the opportunity to enter your school for further study! I will try my best to grasp every learning opportunity, gain more knowledge, and practice lifelong learning with action.

I wish the teacher a happy life, happy family and smooth work!