

## **Research Statement**

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### **Part I: Research Statement**

In my undergraduate years, getting satisfaction from innovating new ideas is the thing that supporting me for doing researches. I am intrigued by deep learning and vision related tasks; thus, I learnt the algorithms of machine learning and deep learning by reading papers and implementing the algorithms myself. In March 2019, I participated in a research about computer vision in a laboratory at Zhejiang University. I worked with a PhD in the lab on self-supervised optical flow estimation. In this research, I performed the recurrence of base-line and bad-case, and designed indexes to conduct results analysis, which contributed to the proposal of our algorithm. This process not only enhanced my research ability, but also motivated my interest of computer vision.

One of my research goals is to prepare myself to be a qualified PhD candidate by doing more in-depth research in computer vision. Speaking of my goals, my short-term goal is to keep working on my researches and get expected output. From the research output, I hope to get some inspiration and bring up some new ideas in the field of computer vision. My long-term goal is to dedicate myself into computer vision and being a researcher in this field. Instead of working in industry, doing theoretical researches is the actual future that I am looking for. The development of Artificial Intelligence is a revolution in technology, and computer vision is the key chain in this revolution. I am willing to devote myself into computer vision and promote its development in the future.

## **Part II: Summer Research Interest**

### **General Research Topics:**

Artificial Intelligence, Computer Vision, Deep Learning, Machine Learning

### **Specifically:**

In this summer, I really hope to devote myself to computer vision or machine learning, including optical flow estimation, self-supervised learning, image and video processing, multi-object tracking and video understanding.

Since I have mastered rich core knowledge and skills in computer vision during the research in my university, I hope to utilize my skills to create some new ideas with world-class professors and students in these labs. Besides, I am passionate about conducting more in-depth research to figure out different issues in the fields I have mentioned above in the summer.