

Motivation Statement-PhD and Research

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Note: I wish to state my reasons for applying PhD research. Recently I received a reminder from professors indicating I am more suitable for master program, I am surprised about why he would say so. After a scrutiny of my application material, I found it may come from my entrepreneurship experience and diverse interest. There are several reasons that I wish to pursue PhD research, which I failed to state explicitly on my SoP.

The reasons that drive me to pursue PhD

Firstly, it is about fulfilling my curiosity. Since my childhood, curiosity and innovation are two most important things in my life. I discovered the innovative role of hi-tech startup. It is important but not the first priority for me. In microscale, there are a lot of unique properties that will change our current understanding on energy conversion. We have no systematic understanding on this.

Secondly, I also love to build up my systematic thinking. I like to draw laws and conclusions when I am observing the world. But I found master student are not that curious about how the world works and deepening our understanding. Being a PhD is the best way to do so.

Thirdly, I found the PhD research can better shape my ability to overcome difficulty and challenge the impossible. So I am more interested in researching on the emerging field, micro scale transport for my coming years. For longer time, the spirit I raised in research can be used in my other experience.

For my entrepreneurship experience, as in my SoP "In the future, I want to be an entrepreneurial scientist." I want to be a scientist who have a spirit of entrepreneurship, that willing to explore the unknown field with most opportunity.

For my diverse interest, I just offered a window to share my interest to all the professor, I think every people with curiosity of the world will have a lot of interesting findings from daily life or various fields. I know clearly the importance of focusing on one field, which you can tell from my continuous research updates on microscale transport.

Career Objective: Teaching, Engineering Practice, or Research?

My lifelong goal is to shorten the marathon between researches and innovative products. Teaching is important for educating others to innovate, but it does not necessarily provide me enough authentic opportunities to create. Also, according to my current knowledge, the professional practice is requires innovation but basing on current technology, not directly from scientific discoveries. According to my interest in understanding Mother Nature and studying how discoveries becomes the technology. Being a researcher could satisfy my curiosity as well as the desire to innovate. Besides, considering my tendency to thinking in deep as well as taking challenges, I would choose research.

Changes in my Updated SoP concerning my motivation on PhD research

I liked to read about science magazines when I was young, so my parents booked 6 along my childhood. Since the first time I read about Scientific American Chinese Edition in 2006, I have been fascinated by the power of advanced technology. In high school, I found science is the drive behind the technology and I fell greatly attracted. After college, my goal is to shorten the marathon between researches and innovative technology. For example, I am impressed by the nano science but I found there is still a distance from systematic application.

To achieve my goal, I think the first step would be building up my systematic thinking and gain insights into innovative research. At the same time, I tried to understand and learn to push forward the frontier. Finally, I start from my research domain to study and accelerate such transformation. These concerns drive me to pursue a PhD research. I felt my heart calling when I found the research picture on world-class universities' websites looks just the same as my 2006 Scientific American. So I can work on my childhood dream? It is unbelievable.

(My research experience...)

(My research interest...)

In the future, I would love to be a scientist exploring a field with rare people and probably working on an interdisciplinary direction. From my startup experience, I learnt to pinpoint a field with most opportunity and be less afraid of failure. I hope this can make me a better fit for challenging PhD topics.