

## **Graduate Statement of Purpose**

Technology always begins from human, a great slogan from Nokia, has been my favorite quote for more than 10 years. Building a robot to benefits human's daily not only physically but also mentally is always my dream. I felt touched and excited while I saw the news about Nao robot has been used by French and Japanese nursing houses to accompany elders doing exercise and helping with their daily lives. After more than three years working in semiconductor industry, I have acquired solid hardware knowledge and developed sound interpersonal and project management skills. I believe it is the right time to fulfill my desire to making lasting contribution in solving tomorrow's challenge with my knowledge and creativity, and joining the amazing evolution of Artificial Intelligence technology. Therefore, I believe Stanford, the world's leading school with high reputation in academy and industry, will be my best next step to achieve my goal.

After graduating from Stanford, I have joined Lam research, a leading semiconductor equipment company, as a process engineer for 3 years. As a process engineer, I have developed strong abilities in solving a problem by decomposing it into basic steps and trouble-shooting an issue with logical thinking and good experiment design. In one of the projects I worked on, we planned to improve current hardware design and develop a new simulation package to further advance our tool performance and ensure the consistency in production environment. In this project, I worked as the project lead in charge of all experiment design and data analysis, and coordinated with software engineers to build models to create a user-friendly simulation package and hardware engineers to brainstorm for new hardware design. The most challenge part of this project is providing ideas and making decision for software and hardware development which are not my expertise. Therefore, I studied for all the background knowledge so that I would have fully understanding issues and control the project going in correct direction, and reviewed design again and again and conduct verification experiments systematically. Gladly, after one year development, we successfully beat competitor and won business and also I received the Certificate of Completion for IC Fabrication awarded by Lam Research Corporation.

In order to pursue my dream in working on the development of interactive humanoid robots and prepare myself for the master degree in computer science, I studied the basic programming language of Python and Javascript and tried brought programming into my daily life by writing code to process the data and building small games to learn beyond the course content. I still can remember how excited I was when I first saw my own game run successfully. It is also this feeling drives me to not give up on the toughest of problems until now. I am currently taking Machine Learning online course from Stanford and pursuing Fundamentals of Computing Certification from Rice University. Starting from 2016 winter, I will take the Software Development and Programming Certification at UC Berkeley Extension.

Apart from USA, I had also worked at IMEC in Belgium for an internship and studied in Hong Kong University of Science and Technology as an exchange student. With these experiences, I even more appreciate different cultures, which becomes my sources of creativity and inspiration. Combined with the training acquired from previous study and work, I am well prepared to study computer science in Stanford University.

After visiting your website, I found the curriculum of graduate program comprised fundamental training and practical-orientation courses; hence I plan to enhance the knowledge in principles of software engineering and study of programming languages in my first year as preparation for internship. I want find an internship related to internet-based education product. In the second year, I will take more practical-orientation courses and courses in Psychology as well. I believe Psychology will benefit a lot while developing project in Artificial Intelligence. I addition, I want to work in the Stanford Artificial Intelligence Laboratory (SAIL). After graduating, I will dedicate myself in the industry and work on Artificial Intelligence. I want not only creating a great technology but also ensuring its best utility is available to human. That is one of my ultimate goals. Applying what I have learned to help elder people have higher quality lives will be the other important objective of mine.

Repeated discussions with my friends and a careful search on the Internet show that your Institute in computer science domain is highly reputable in the academy and industry. A recent research from Humanoid Robotics project about a pair of SupraPeds is able to improve the stability of humanoid robots while navigating to traverse cluttered and unstructured environments. This remarkable research made me realize that your department emphasizes the link between theories in academy and practicing in the technology industry. I think that is why your school is always in the leading position in the field of computer science. Your in-depth practical-orientation coursework, research in a wide range of domains from mobile computing to machine learning, and strong relation to local companies will give students opportunities to exposure to culture of Silicon Valley and help students to build career path. I am confident that exposure to such environment will cultivate my professional knowledge, enhance the skill sets to overcome challenges and fulfill my urge to make a lasting contribution in Artificial Intelligence. So, I look forward to studying in the computer science at Stanford.