Statement of Purpose | **Xinru Wang**

My childhood was filled with praise from my relatives and teachers because of my Go skills. I mastered Joseki (corner sequences), Fuséki (opening strategies), and Tsumego (life and death problems) at an early age, which helped me win multiples municipal-level prizes and awards. However, when I entered college, my life was turned upside down. Because of my father's insistence, I chose a major (civil engineering) that could hardly ignite my passion. Yet, I did not want to be left behind and became considered as a mediocre student, so I bit the bullet to focus on my coursework and final examinations. Despite my effort, the process was not dissimilar to walking on hot coals, and I did not achieve the record I had expected. For a time, I thought the past me had been dead.

However, something gave me hope amidst despair. To kill my time by watching Go games online, I stumbled upon the video of AlphaGo versus Lee Sedol. Yes, the game happened in 2016, but back then I was busy preparing for the college entrance examination, so I didn't spare time for it. But that night in college, I observed so closely how a computer proved itself to be a professional Go player. Soon, I noticed all the unconventional tactics AlphaGo constantly employed. For example, the AI would take extremely aggressive measures when human consider the situation risky, such as directly attacking Sedol's large group of connected stones in a "critical middle game" scenario, where human players tend to adopt a more conservative strategy like encircling the opponent's territory. Sedol's response was obviously unprepared. He did try to enhance his defensive territory to fend off AlphaGo's aggressiveness, but only to find himself struggling to keep up with his opponent's unpredictability.

I was instantly mesmerized—not just by the AI-enhanced moves but also by the marvels created by leading-edge computer science technologies. Considering the misery I had suffered as a civil engineering student, I decided to transfer to another school of our university to study computer science. My decision was right. Not only did I feel comfortable learning to code, but I also secured multiple opportunities to engage in research projects. To my contentment, my research experience exposed me extensively to the technologies, whether they be deep neural networks, reinforcement learning, and Monte Carlo tree search. Such experience enhanced my coding skills and prepared me to seize the selective opportunity to work at Meituan as a software developer.

As a female software developer having worked full-time for over a year, I will surely join the Graduate Women in Computer Science (gWiCS) at UCLA. I would share my stories of seizing the opportunity to work at Meituan and overcoming challenges in a male-dominated workplace. If some of the female members have difficulty in securing a job in the tech world, I can surely provide mentorship and share job search strategies, possibly conducting mock interviews or reviewing resumes to boost their confidence. Moreover, since the #Metoo movement in China has faced tremendous challenges, with legal systems often not providing the needed support for those speaking out, I hope to learn about the movement in the United States through engagement with gWiCS and gain insights that might help professionals in my country advocate for a more equitable workplace. Furthermore, given my research experience that culminated in a published paper, I hope to engage in research projects with faculty members whose research interests me. In doing so, I am best positioned to learn from and contribute to the UCLA community.