Statement Of Purpose

I am a senior at Iowa State University pursuing a computer science degree.

I came to the U.S. in 2018 and started learning at one of the top universities of science and engineering majors, Iowa State University (ISU), the birthplace of the first electronic digital computer. I currently have a GPA of 3.48 and enjoy the learning environment here at Iowa State. I am confident I can keep my grades up during graduate study and contribute my efforts to Iowa State’s academic research.

In February 2022, I joined a company called PeachPay as a Software Engineer Intern. As one of the development team, I got valuable coding experience in modern software development processes. I learned how to communicate with our clients. I discover, investigate, fix bugs, and implement new features according to their needs. During my part-time internship, I helped companies fix and implement 20+ new features.

Since computer science knowledge requires a deep understanding, by the recommendation from Dr. Steve Kautz, I became a Teaching Assistance in the course COMS127 INTRODUCTION TO COMPUTER PROGRAMMING. I started to help students to understand the concepts and ideas of the class material. I held lab sections, provided guidance and support to students, checked their homework, and helped them solve problems. I learned how to communicate with students and gained valuable teaching experience from the work.

All enabled me to deepen and refresh my understanding of computer science and ensure my knowledge is up to date. My interpersonal communication and problem-solving capabilities have significantly improved regarding soft skills acquisition. I understood how to use my language carefully to impart knowledge because tutoring places a vast amount of emphasis on words. Beyond that, these experiences greatly helped my computer science study. Especially when it comes to computer programming, there is a great need for maintaining strong communication skills, as the tasks of computer programming are not just limited to programming but dealing with different complex situations effectively as well.

During my internship and working as a Teaching Assistance, these precious experiences not only broadened my scope of knowledge but also gave me the confidence to study further in computer science-related fields. So now, I decided to move forward and continue to study in the United States, where the most cutting-edge computer science technologies emerge and thrive. I deeply realized that I still have many unknown areas, especially in security, machine learning, and AI, which are now popular. And I hope to learn more knowledge to improve myself.

My career goal is to combine my understanding of technology and management to better serve end users one day while fully using my educational background and strengths. Specifically, I aspire to work at a large technology-based business like IBM, or Amazon, start on technical, move up the ranks and eventually be an executive.

Names of Computer Science faculty I wish to work with in my graduate program:

**Systems and Networking:**

Wensheng Zhang

**AI, ML, and Data Science:**

Mengdi Huai

Hongyang Gao