Demonstrate an understanding of what software engineering is, your familiarity with the specific goals of the program, and your interest in the program’s content. If your main interest is in a computing field other than software engineering (e.g., machine learning, data science, cyberphysical systems, security, natural language processing, e-health, autonomous computing, computer vision), explain why M.S.-SE is the right program for you and how your main interests can benefit from a degree with core skills in software engineering. Show awareness of the differences between software engineering and other computing fields.

Please limit text to no more than 300 words

展示你对软件工程的理解，说明你对该专业具体目标的熟悉程度，以及你对该专业内容的兴趣。如果你的主要兴趣并非在软件工程领域（例如机器学习、数据科学、网络物理系统、安全、自然语言处理、电子健康、自主计算、计算机视觉），请解释为什么软件工程硕士课程（M.S.-SE）对你来说是合适的，并说明你的主要兴趣如何能从具备软件工程核心技能的学位中受益。同时，也要展现出你对软件工程与其他计算领域之间差异的认识。

From my point of view, software engineering is an engineering approach to turning ideas into software. It emphasizes the long-term stability of the project and reduces the team's maintenance costs, rather than rapid prototype. I understand this through both theory and practice: I took LI Software Engineering and Professional Practice module to learn systematic design, task decomposition, version control and test principles, and then applied them in LI Team Project module, where I practiced architecture design, CI/CD pipelines and documentations to keep a multi-member project maintainable.

Such an understanding motivated me to focus on the combination of engineering when conducting algorithm practice. Whether turning the video gaze estimation model into an online service or promoting the use of "AI-in-the-loop" standards among TAs, my goal was always to systematize these scattered practices.

These constant explorations also helped me narrow my research interest to ML Systems and set a clear goal of making the model scalable, reproducible, and maintainable in real-world environments. Nowadays, AI has welcomed a new stage of developing the process itself. Tools such as agents, code assistants, and automated test generation need to be incorporated into the requirements, design, review, and testing cycle. One approach to accelerate the implementation of ML systems, making collaboration between humans and AI smoother, is the combination of soft engineering with AI-in-the-loop. With these efforts, the ultimately goal of accelerating the democratization of technology will be achieved after shortening the distance from model to system, and then to product. With this academic objective, I commit to leveraging my software engineering skills in AI optimization with the support of the advanced knowledge in the MS in Software Engineering program and the abundant resources at CMU.

**D. Optional Essay**

The College of Engineering at CMU values excellence, innovation, being genuine, diversity, respect for others, integrity, trusting, and being trustworthy. Within the context of your experiences, how would you contribute to these values within our community?

As a student of computer science, when witnessing the generative AI revolutionize the world splendidly, I started to worry about the technical ethical challenges that we faced.

The direct dilemma isthe role AI plays in completing academic work. Instead of relying on an AI-powered IDE to generate code for assignments and draft paperwork, I disciplined myself and integrated them into my learning process consciously.

The boundary of the use of AI is not only suited for me, but also applied to my work as a teaching assistant by guiding them to treat AI as a learning aid, rather than a shortcut that would relieve them of burdensome work. As for me, integrity is not merely an individual matter of honesty; it is also about cultivating a learning environment that is fair, transparent, and trustworthy through the implementation of systems and practices.

My perspective on tech ethical issues in AI extends beyond academic integrity to encompass diversity and respect. During the LH Intelligent Interactive Systems course, I investigated the sources of AI bias, its social impact, and ways to promote the democratization of AI in my research paper.

Considering that most methods to mitigate bias focus on dataset preprocessing and result postprocessing, which are essentially engineering problems, I aspire to contribute my strengths. Upon my enrollment at CMU, apart from taking in-depth thinking of the best solution for AI in the loop to optimize the student AI usage guidelines I drafted during my TA period, I plan to further develop these specifications into a set of practical AI teaching and collaboration applications. Therefore, I can reduce communication costs and improve the transparency and fairness of teamwork. Consequently, this contributes to the optimization of fairness and the learning experience in the future. Thus, I can spread and flourish the CMU’s values.