Q: Why am I a right fit for the program?

I have done two master's degrees with one in Computer Science (3.37/4 CGPA) and another in Finance (3.71/4 CGPA - Silver Medalist). For the last three years, I have been working in the machine learning domain and have worked on many interdisciplinary ML projects with cross-functional teams from all over the world. Some of my projects include making multi-class road star-rating predictions using big data for iRAP (Australia), detecting anomalies in clinical health for FlaskData (Israel), and recently, building a layout recommender using synthetic data and Google's VertexAI while working in an agile and lean environment QAware-DPS (Germany). Considering real-world machine learning projects require extensive research, in-depth analysis of the problems at their very core, and constantly being up-to-date with the latest developments in the ML domain, my work experience has paid me well in terms of knowledge and research experience.

During my MCS project, I built an end-to-end spam email classification solution. I trained, tested, and compared five different machine learning models using scikit-learn (max model accuracy: 98.6%) and deployed them as a web application on Streamlit. One of the submission requirements was to compare and optimize the solution's accuracy with three existing research papers. That pushed me to explore, read and understand research papers to create a better solution than the existing ones. My final year project is publicly available on Github as well. (project-link)

I am also an open-source enthusiast and a regular contributor to several open-source projects like openvino-colab (project-link) and Auto911 (project-link). I have been awarded two Linux Foundation Training (LiFT) scholarships based on my open-source contributions, especially in the openvino-colab project. Streamlit also included my two medium articles on Streamlit and GPT-J in its Streamlit weekly review.

I have also served as an artificial intelligence faculty in the presidential initiative for artificial intelligence and computing (PIAIC), where I taught 1200+ students Python programming language, data engineering, and machine learning courses. Nowadays, I am voluntarily teaching as an instructor in iCode Guru, a community of 5000+ underprivileged students.

Q: What do I hope to accomplish from my studies?

After my Ph.D., I aim to get into academia as a computer science lecturer and tech consultancy services as an artificial intelligence consultant. Therefore at ISU, I aim to gain technical domain expertise and learn the professional way of teaching.

Overall, I firmly believe that doing a Ph.D. in Computer Science with a research focus on machine learning at Iowa State University will have wide-reaching benefits for my professional and academic career and make me become an asset to the department and the university.