Design and implementation of a network performance monitoring System:

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1/21/2026

My name is Shraddha Mittal. I am born and raised in Hyderabad, India. For my undergraduate I did B.com and then, I went ahead and gave interview for IBM as technical support analyst – That made me interested to learn beyond customer service and I decided to master's in computer science – It brings me today, Pursuing Computer science in Rivier university.

Rivier gave me an opportunity to learn and explore the field of computer science it offers. I have had classes with various proficient professors during my last couple of months.

For 1st Semester I had Computer science fundamentals, object-oriented design and networking technologies which introduced me to basic programming concepts, software design principles, and computer networking. During the next semester, I completed coursework in Java Programming, Computer Architecture, and Operating Systems, which enhanced my skills in object-oriented programming and my understanding of how hardware and operating systems interact. In my third semester, I completed courses in Algorithms, Information Technology, and AI and Machine Learning.

My interests in computer science include networking and artificial intelligence because they represent core and rapidly evolving areas of technology. Networking focuses on how systems communicate and share information, which is fundamental to modern computing environments. Artificial intelligence, on the other hand, explores how machines can learn, analyze data, and make intelligent decisions. Both areas highlight innovation and problem-solving within computer science and continue to shape the future of technology.

The proposed project is a software-based system designed to continuously monitor and analyze the performance of a computer network. The system collects key network parameters such as internet speed, latency, packet loss, and connectivity status, processes this data, and presents it to the user through a simple and interactive dashboard.

The primary goal of the system is to help users understand the health of their network, identify performance issues, and assist in basic troubleshooting without requiring advanced networking knowledge.