## **PROBLEM STATEMENT:**

In fog computing environments, which involve a decentralized network of interconnected devices and edge computing nodes, ensuring secure and reliable communication poses significant challenges. The resource-constrained nature of fog nodes, coupled with the increasing volume of data generated by IoT devices, necessitates the development of an AI-enabled secure communication mechanism that addresses the specific constraints and requirements of fog computing systems.

The problem at hand is to design and implement a secure communication mechanism that leverages AI techniques to enable efficient and robust data transmission in fog computing environments with limited resources.