

Deploying Machine Learning Application on Edge Devices, a Study of Challenges and Solutions

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TECH/TOOLS USED



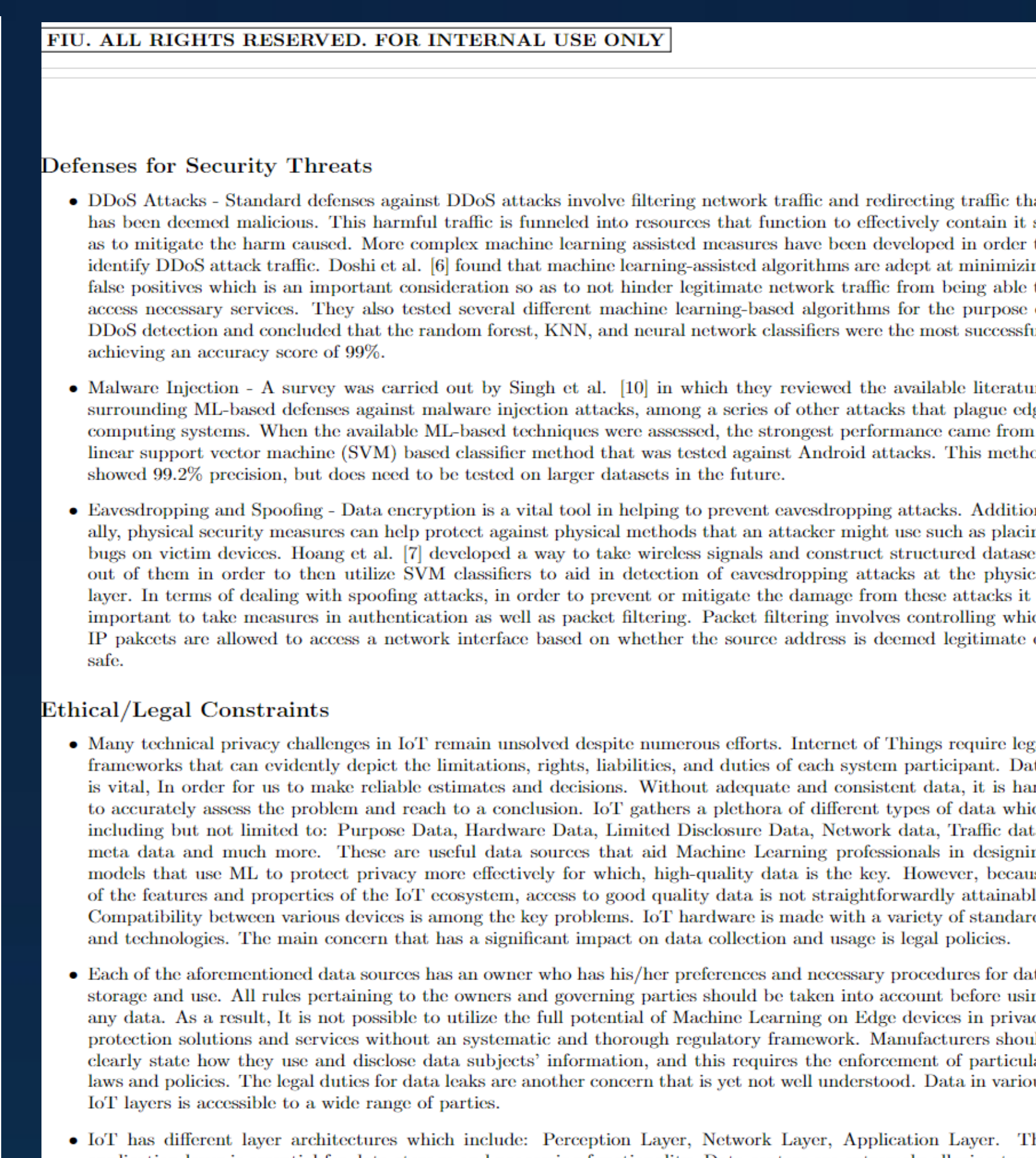
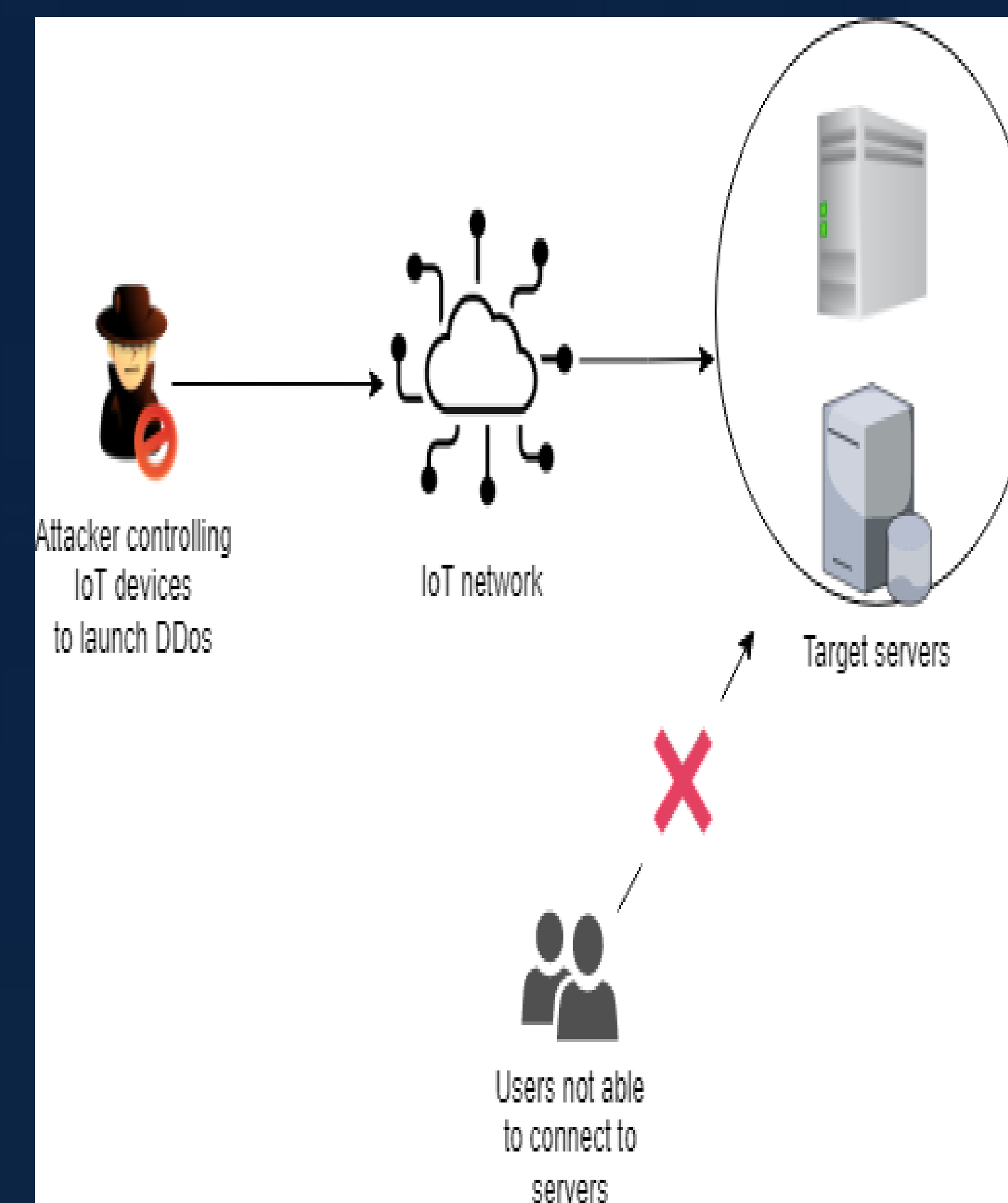
IMPLEMENTATION

- GitHub was used to create and store all documents relating to the research paper.
- LaTeX in VSCode was used to write down all research for upload to GitHub.
- Draw.io was used to create diagrams for the research paper.

VERIFICATION

Our capstone team was divided into 3 groups Development, Security, and Deployment. CAP 1 students were responsible to gather research articles/resources for their current topic. CAP 2 students were responsible to carefully review these resources and compile a research paper.

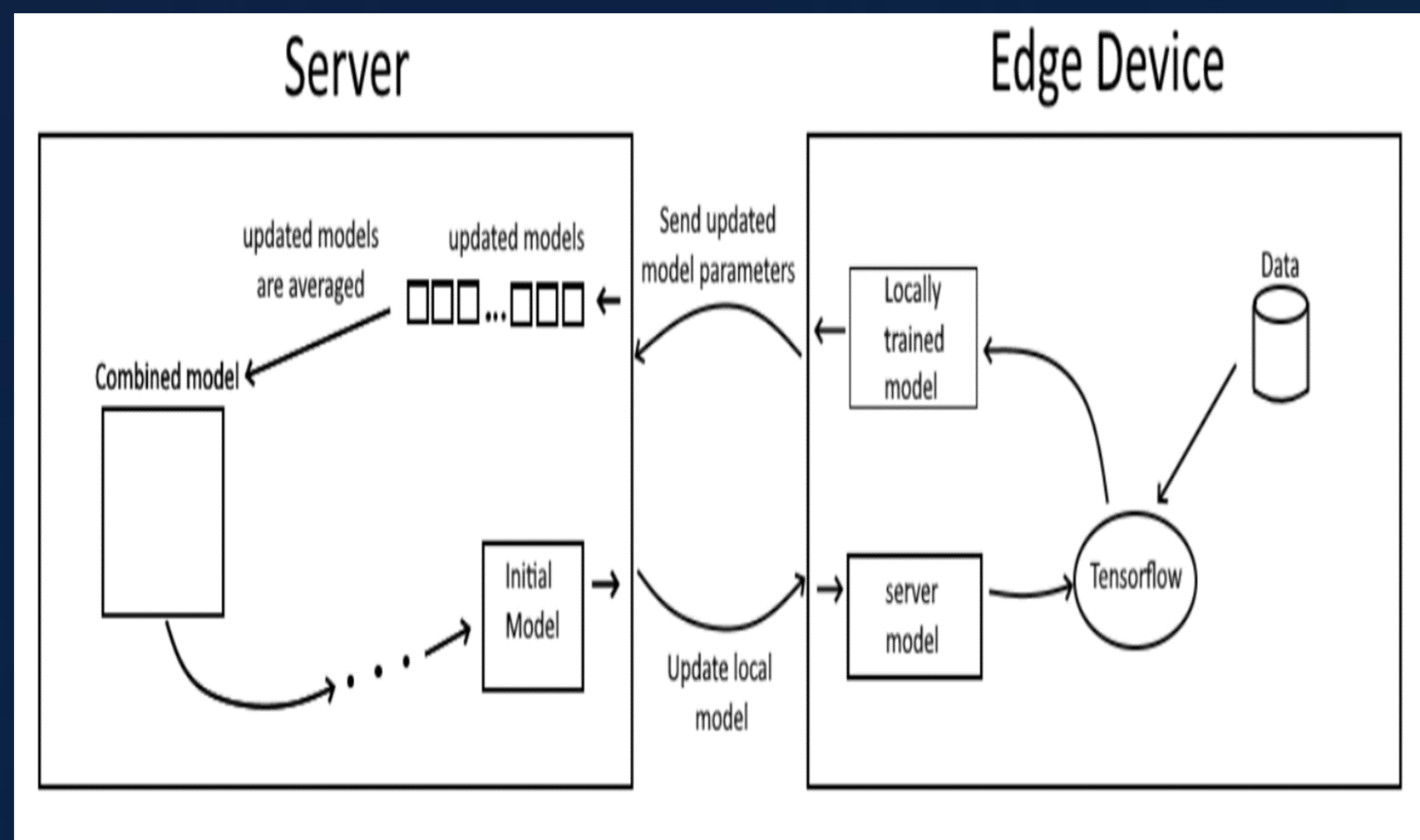
SCREENSHOTS/DIAGRAMS



REQUIREMENTS

- Create a research paper on machine learning with edge devices by:
 - Researching
 - The development of AI/ ML models for edge devices.
 - The deployment of AI/ ML applications to edge devices.
 - How to secure the AI/ ML applications once deployed on edge devices.
 - Learning how to use LaTeX in VSCode to write all research.
 - Uploading all research to GitHub.

SYSTEM/OBJECT DESIGN



SUMMARY

In this project we researched various frameworks and technologies available for development of ML on edge devices as well as the challenges that come with them. My personal contribution to this topic includes detailing the various attacks on Edge devices their networks, and their ML models and ethics and legalities of Machine Learning on Edge devices. I also created a visual aids in form of diagrams of some attacks on Edge devices.