Creating Content Verification Tools to Protect Document Integrity

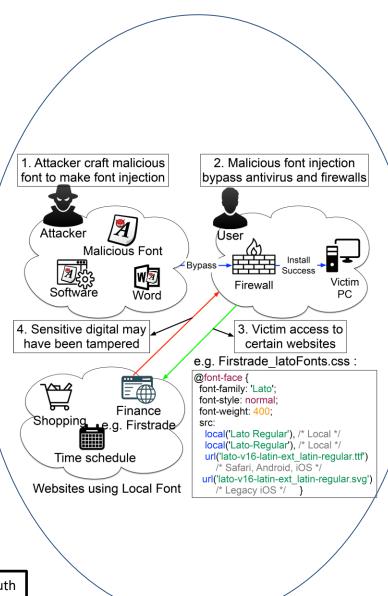
Challenge:

- The content masking attack can significantly compromise the integrity of a document, because it causes a human and a computer to see different content from a document.
- This project aims to address this threat by seeking effective defense tools.

Solution:

 The key innovation of this project is the creation of a comprehensive defense toolkit that can effectively address advanced content masking attacks leveraging adversarial machine learning techniques.

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Scientific Impact:

- This project will advance the state-of-the-art in document security via creating a set of defense tools to assure the integrity of documents.
- This project may improve the security community's understanding about the security by identifying the content masking attack and the impact of adversarial machine learning on document integrity.

Broader Impact and Broader Participation:

- This is a transition to practice project and the targeted users are companies and organizations that concern document security.
- An undergraduate student was recruited to participate in this research project.