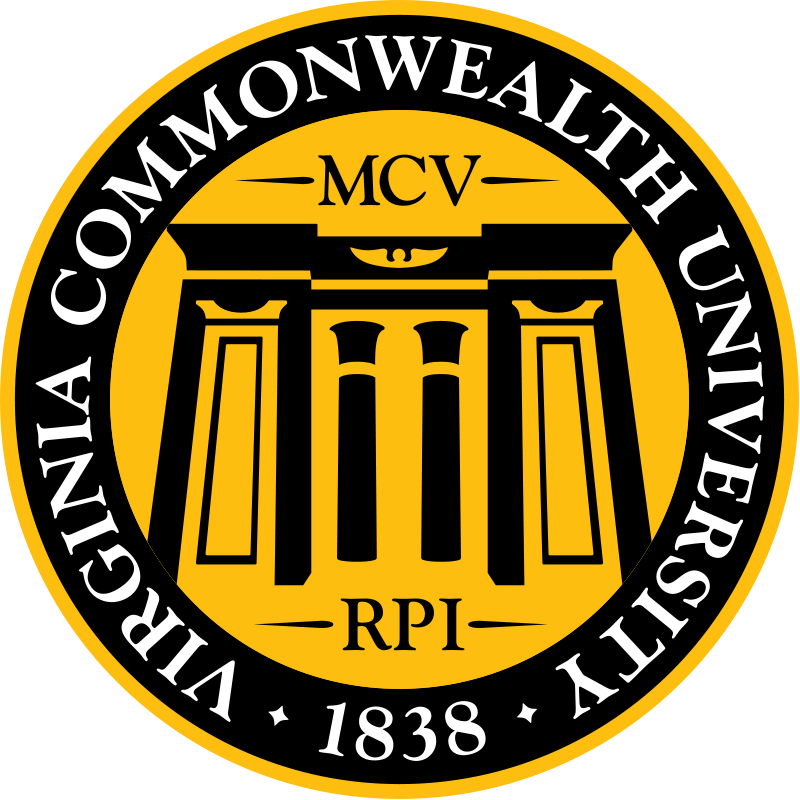
**EMAIL ANOMALY DETECTION**

**CAPSTONE SENIOR DESIGN 2019 - 2020**



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**REQUIREMENTS**

## Title

Email Anomaly Detection Tool

## Description

# The exfiltration of sensitive information is when an authorized individual extracts data from a secured system and either shares it with unauthorized third parties or moved to an insecure system. Organizations like Capital One contain large amounts of high-value data that outside threats would be eager to obtain. If successful, an attacker can cost an organization millions of dollars in damages to its customers and even the government. To create an effective tool against data exfiltration, incorporating machine learning models into the realm of cyber security is the next step in securing companies private data. The purpose of this tool is to detect the exfiltration of sensitive information from emails and email attachments. The tool will be able to scan the body of an email for any personal identifiable information as well and known sensitive material.

## Priorities

Priorities of this tool is to incorporate machine learning models to create a tool is to detect the exfiltration of sensitive information from emails and email attachments. The tool will be able to scan the body of an email for any personal identifiable information as well and known sensitive material. If any data is identified it will flag it. The tool will also have the ability to take machine text from image attachments to determine if there is any sensitive information in them.

## Features

* Able to determine the feel of the email where it can be positive or negative.
* Ability to determine a large list of known personally identifiable information
* Determine if code is being exfiltrated.
* Check any type of attachment and scan the attachment for data.
* Analyzing images sent in attachments for sensitive information.

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## Project Timeline

This section covers the development timeline for the project, we managed deadlines via a trello board shown below. During the course of the project when something new needed to be done it was added into the trello board. Each phase of development was outlined and what tasks needed to be accomplished were defined.

