ELEVENTH ANNUAL

STUDENT SHOWCASE

VIRTUAL

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2020

DEPARTMENT:

Computer Science

FACULTY SPONSOR:

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STUDENT(S):

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PROJECT TITLE:

PyGoat - WebGoat reimagined in Python

The Problem

- Create a deliberately insecure web application designed to teach the average person about common web vulnerabilities

- Web application security tools exist, but are commonly written in enterprise-friendly languages like Java and NodeJS
  - This makes writing lessons about additional vulnerabilities challenging

- We wanted to create a collection of web vulnerabilities, written entirely in Python

Requirements

- Build a framework in Python in which to store various hacking challenges

- Should compile to a self-contained executable for Linux

- **Needs to be extensibile**
    - Should be easy to add additional lessons and challenges

Design

- Flask

- SQLite

- Yaml Config Files

Testing

- Using Pytest to test functions behaving correctly and automate adding tests for solutions in an extensible format.
- Using bash scripts to test that the designed solutions do solve the given problems, which can simply be dropped into the .../Pytest/solutions/curl_scripts/ directory.