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Project Topics and Ideas

Computer and Information Sciences,
Undergraduate (CISC)

Summer 2019

Cloud Cybersecurity, VMs and Containers

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Title:
Cloud Cybersecurity, VMs and Containers

Author:
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Difficulty:
Moderate

Specialization:
Computer and Network Security

If other, please specify:

Most Appropriate Course:
Project I

Brief Description:
Establishing and monitoring cloud security within an OpenStack Cloud

Number of students needed:
2

Outcomes and Deliverable:
Recommendations and implementation of cloud cybersecurity

Skills Required:
Computer Architecture, Python Programming, Data Networking

Available Resources:
HPC Cloud Environment

Program Goal:
CISC 1.3: Develop Solution, CISC 1.4: Deploy Solution, CISC 1.5: Secure Solution CISC 2.1: Hardware Platform, CISC 2.3: Networking CISC 4.1: Written Communication

Student Learning Outcomes:
1a: The student should be able to analyze a problem in a manner that facilitates the design of its solution., 1b: The student should be able to apply relevant principles of computing during their analysis of a problem., 4a: demonstrate understanding of legal and ethical principles., 5b: Ability

to collaborate as an effective team member., 6a: Student will be able to produce computer-based solutions by applying applicable computer science theory and software development fundamentals