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Project Topics and Ideas

Computer and Information Sciences,  
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Summer 2019

# Cloud Cybersecurity, VMs and Containers

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## Computer and Information Science Undergraduate Project Topics and Ideas

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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