# **Modular Approach to Cloud Security**

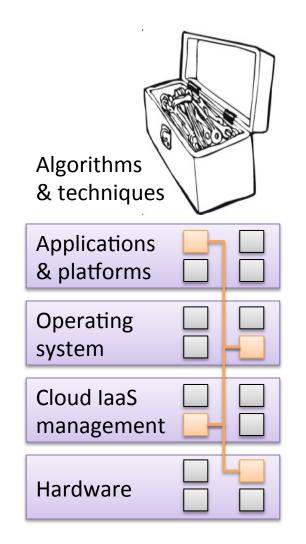


## **Challenge:**

- Cloud computing has a huge impact on society, but security concerns inhibit its uptake
- Outsourced computation provides a rich playground to compare and combine different solutions

#### **Solution:**

- Build systems with multilayered security guarantees
- Assert the security of components individually
- Then compose to derive the overall system's security



## **Scientific Impact:**

- Showcase composable design and analysis as a viable basis for secure system design
- Bring beautiful and novel algorithmic techniques for privacy-preserving computation to the cloud

### **Broader Impact:**

- Deployment on the Massachusetts Open Cloud
- Impact upon the practice of cloud computing
- Several outreach programs to expose local-area middle and high school students and their teachers to cybersecurity

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