

# An Assessment Driven Approach to Self-Directed Learning in Secure Programming (SecTutor)

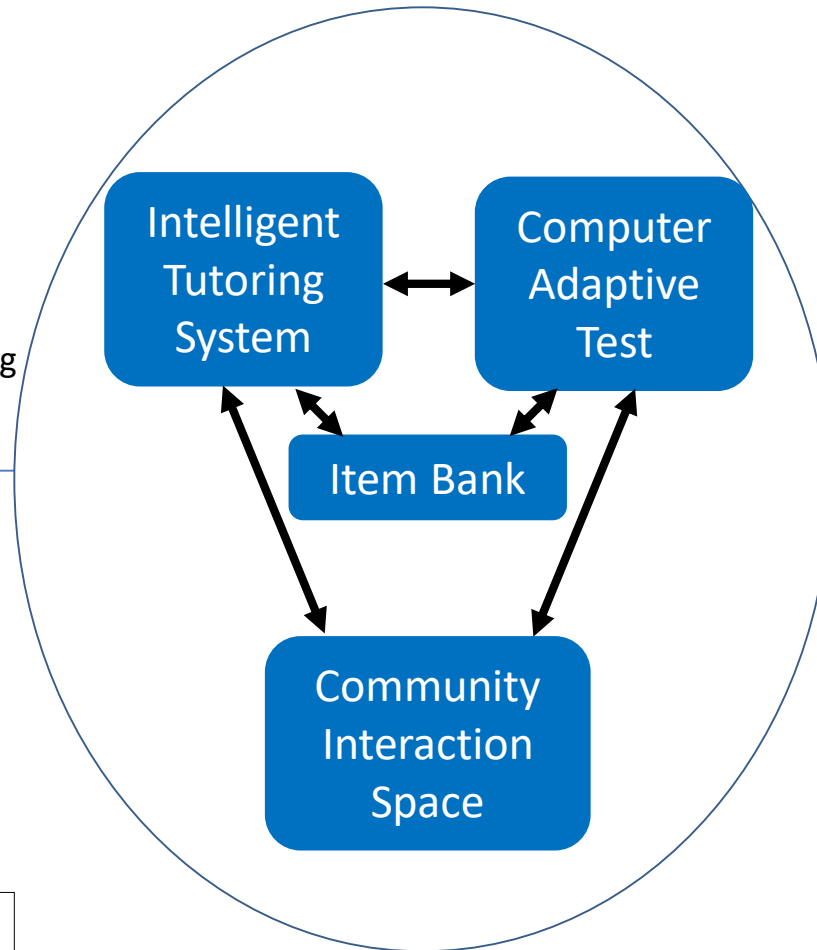


## Challenge:

- Failure to practice secure/robust programming is a challenge in cybersecurity
- Need means for students to practice secure programming outside class and across curriculum

## Solution:

- Integrated intelligent tutoring system, adaptive concept inventory and learner analytics



## Scientific Impact:

Uses the principles of self-directed learning to create a system that integrates assessment, customized learning, and peer instruction to improve learning in secure programming

## Broader Impact:

- Allow students to learn secure programming at their own pace
- Allow instructors to diagnose and treat misconceptions
- Contribute to a community of practice