Assessing Security in Virtual Reality: Forensics, Privacy, and Perception

Student: Oluwatosin Falebita, Ethan Myers, Evan Anspach, and Mason Coco
Faculty: Dr. Indrakshi Ray, Dr Francisco R. Ortega
Computer Science Department
Colorado State University

Problem Statement

- Virtual Reality is gaining general adoption
- Virtual Reality devices are subject to cyber attacks
- We need to investigate vulnerabilities that can be exploited to manipulate users behavior in virtual reality
- We need to measure how long the attack goes unnoticed
- We need to identify how the attack affects the user's perception on security and trust in virtual reality

Proposed Approach

Discovering vulnerabilities in VR device

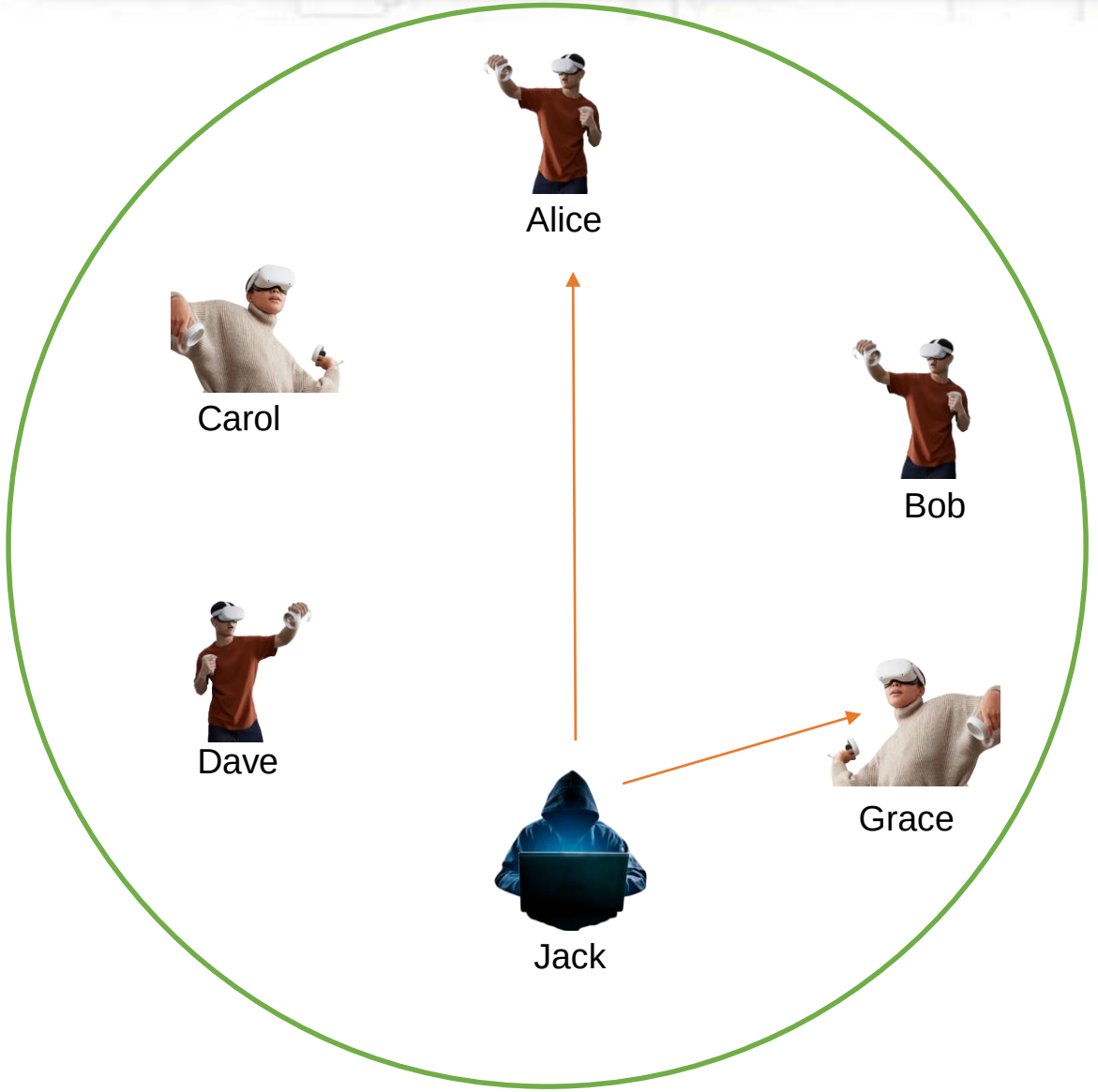
- Digital Forensics
- Network Forensics
- Penetration Testing

Perception Analysis

- Simulate a Gaming VR environment
- Launch an attack unnoticed
- Measure the Just Noticeable differences
- User Perception about security and trust in VR

Privacy Analysis

- Application Analysis
- Source Code Analysis



THANK YOU

OUR POSTER IS LOCATED ON