

# Seminar



## *Deepfakes and Synthetic Reality: Blurring the Lines*

**Abstract.** This presentation explores the rise of deepfakes and synthetic reality, highlighting their potential for both innovation and misuse. We will delve into the underlying technology, including AI and machine learning, that enables the creation of hyper-realistic media. The discussion will address the societal and ethical implications of deepfakes, such as misinformation, privacy violations, and threats to democracy. Additionally, we will examine current and emerging defense strategies, including deepfake detection tools, legal frameworks, and public awareness campaigns. The goal is to provide a comprehensive understanding of the challenges and solutions surrounding this rapidly evolving digital landscape.

**Biography.** Dr. Jeff Crume is an IBM Distinguished Engineer and Master Inventor with more than 40 years' experience in the IT industry. He has a PhD in Cybersecurity and serves as an Adjunct Professor at NC State University. Jeff's YouTube videos have been viewed more than 13 million times, and he is the author of a book entitled "Inside Internet Security: What Hackers Don't Want You To Know" as well as a contributing author to the "Information Security Management Handbook." He is a member of the inaugural class of the NC State University Computer Science Alumni Hall of Fame and serves on the editorial board for the "Information and Computer Security" research journal. Jeff lived in Beijing on assignment in 2006 and has worked with clients in 50 countries.



**Dr. Jeff Crume**

IBM Distinguished Engineer  
and Master Inventor  
IBM USA

[crume@us.ibm.com](mailto:crume@us.ibm.com)

Wednesday September 10, 2025

Time: 2:00 – 3:00pm

**Microsoft Teams**

[Join the meeting now](#)

Meeting ID: 234 537 590 627 9

Contact: Dr. Kamran Sartipi  
Dept. of Computer Science, ECU  
<https://cs.ecu.edu/sartipik16/CSseminar/>