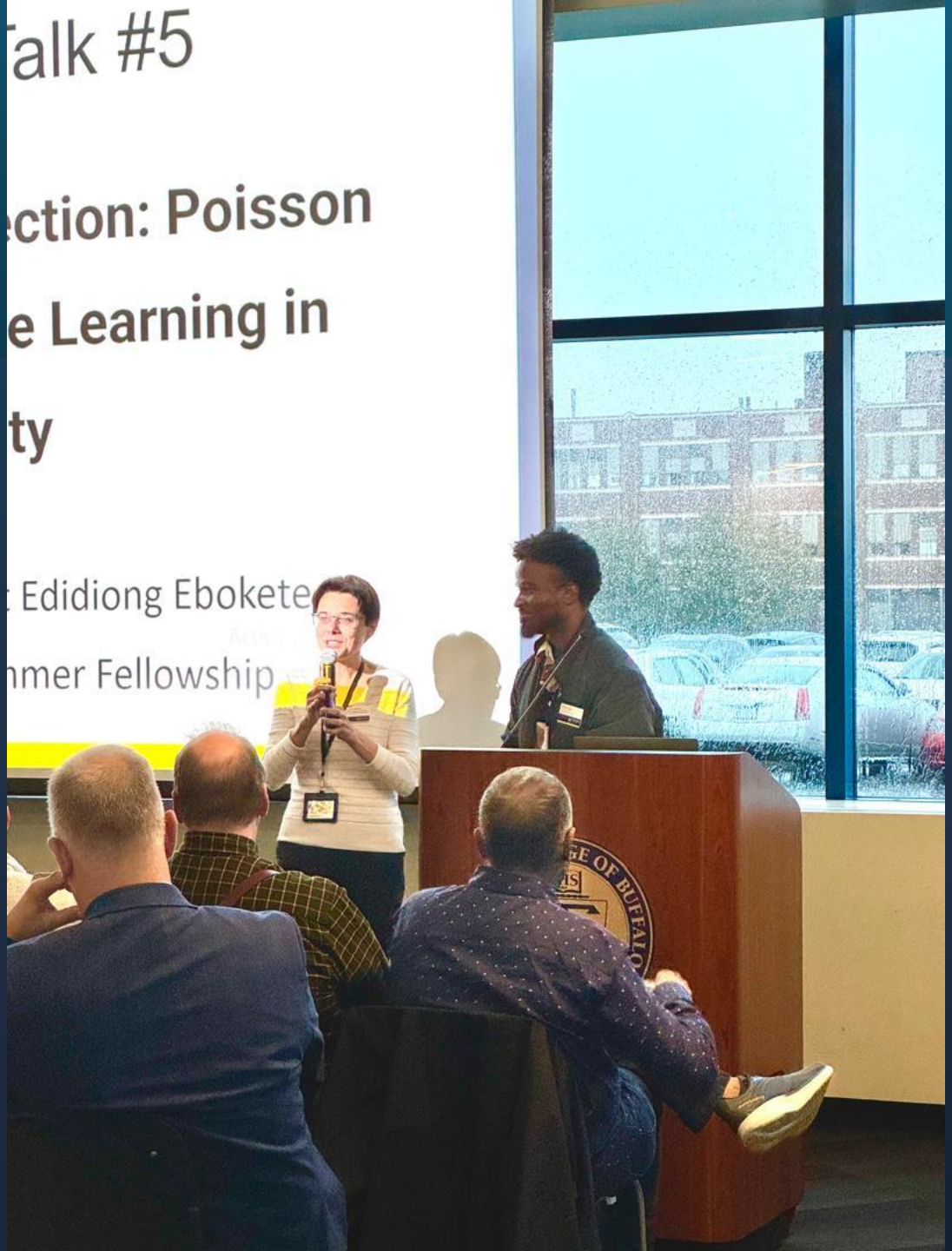
Poisson-CI Research Presentation Event photos

From Probability to Protection: Poisson Inequalities for Machine Learning in Cybersecurity

Canisius University


Lightning Talk #5
From Probability to Protection: Poisson Inequalities for Machine Learning in Cybersecurity
Dr. Sana Spector and MS Student Edidiong Ebokete
Supported by the Koessler Summer Fellowship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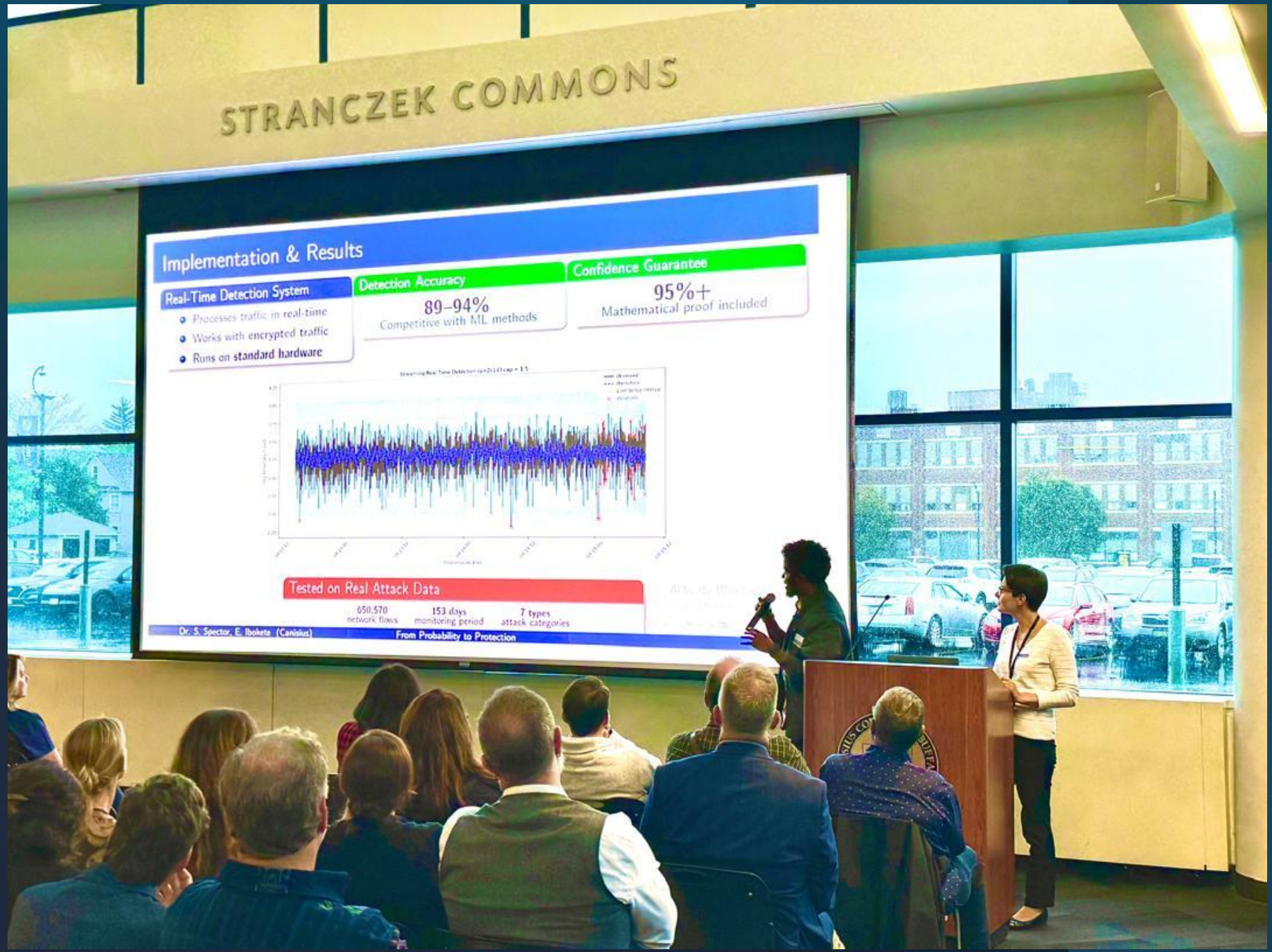
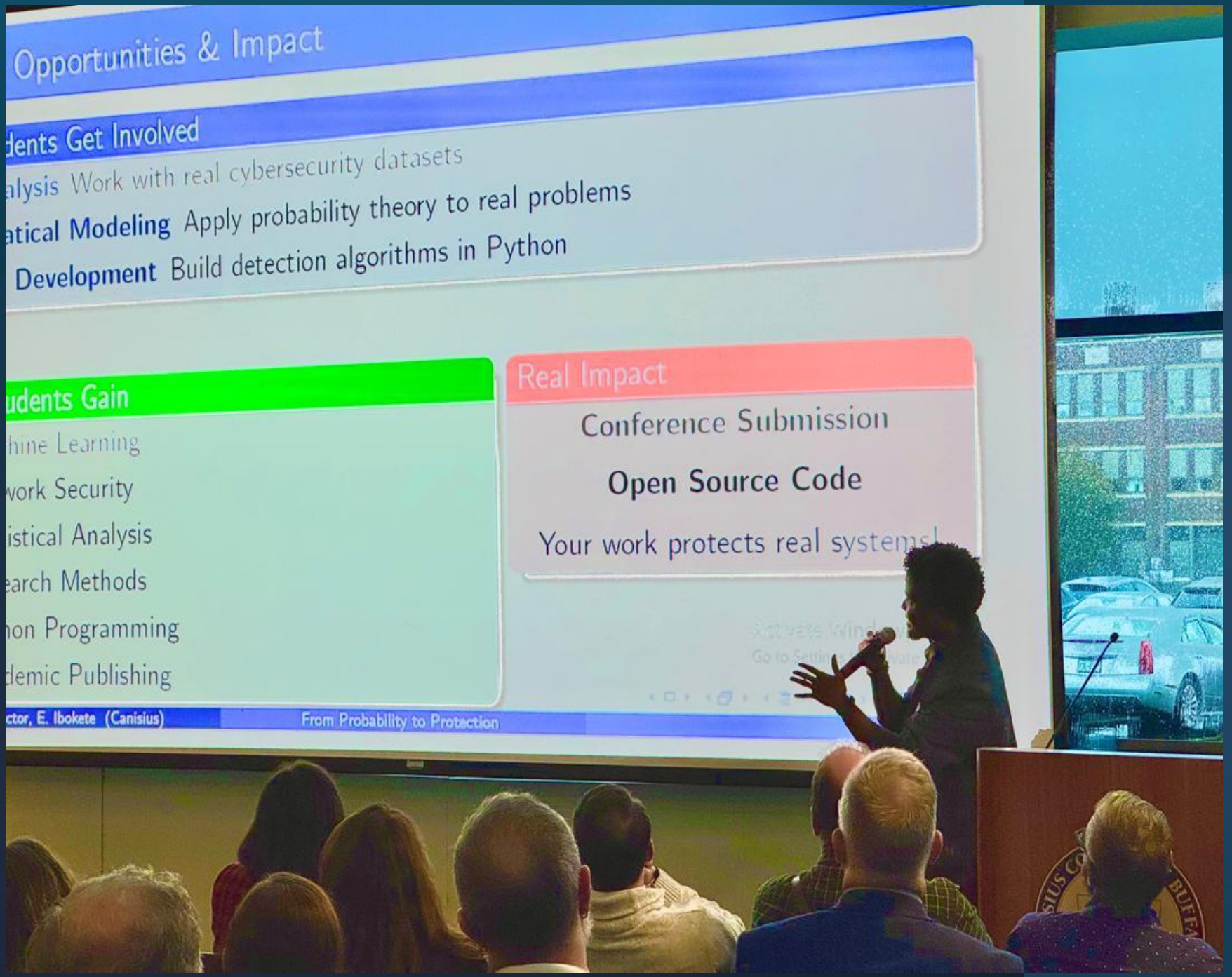

STRANCZEK COMMONS
Implementation & Results
Real-Time Detection System
Processes traffic in real-time
Works with encrypted traffic
Runs on standard hardware
Detection Accuracy
89–94%
Competitive with ML methods
Confidence Guarantee
95%+
Mathematical proof included
Tested on Real Attack Data
650,570
network flows
153 days
monitoring period
7 types
attack categories
Dr. S. Spector, E. Ibokete (Canisius)
From Probability to Protection


Opportunities & Impact
dents Get Involved
alysis Work with real cybersecurity datasets
atical Modeling Apply probability theory to real problems
Development Build detection algorithms in Python
udents Gain
hine Learning
work Security
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non Programming
demic Publishing
Real Impact
Conference Submission
Open Source Code
Your work protects real systems!
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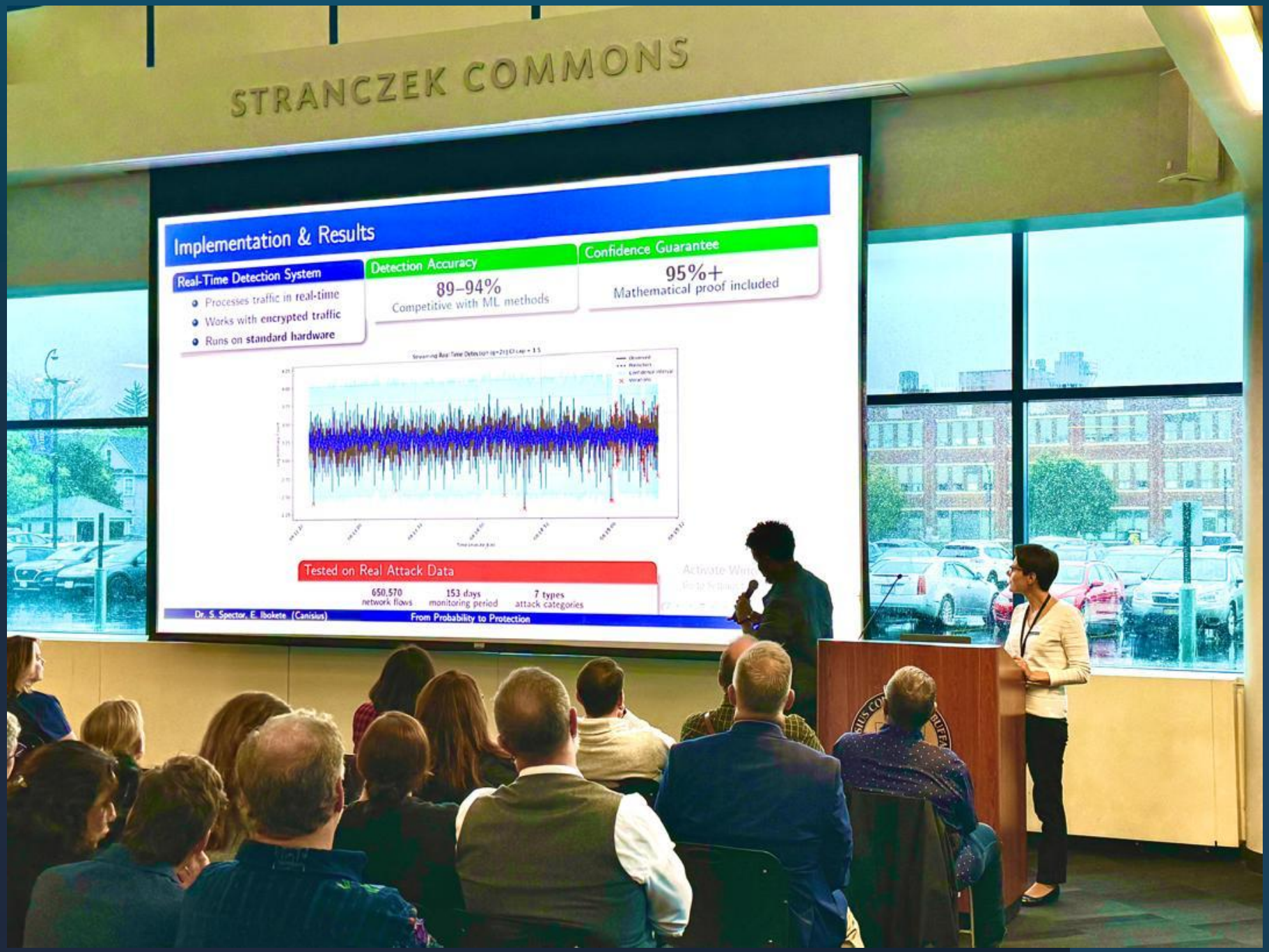
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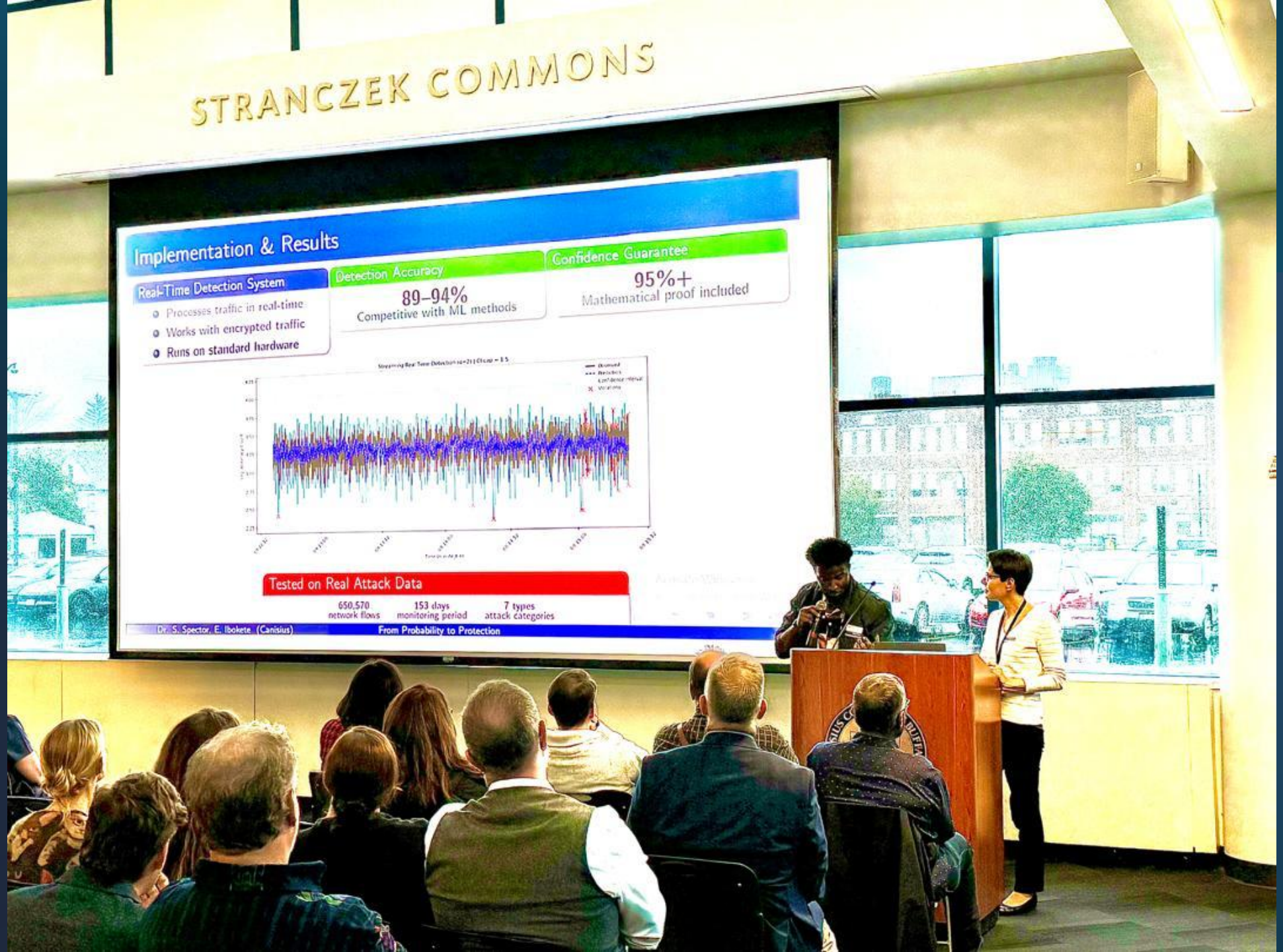
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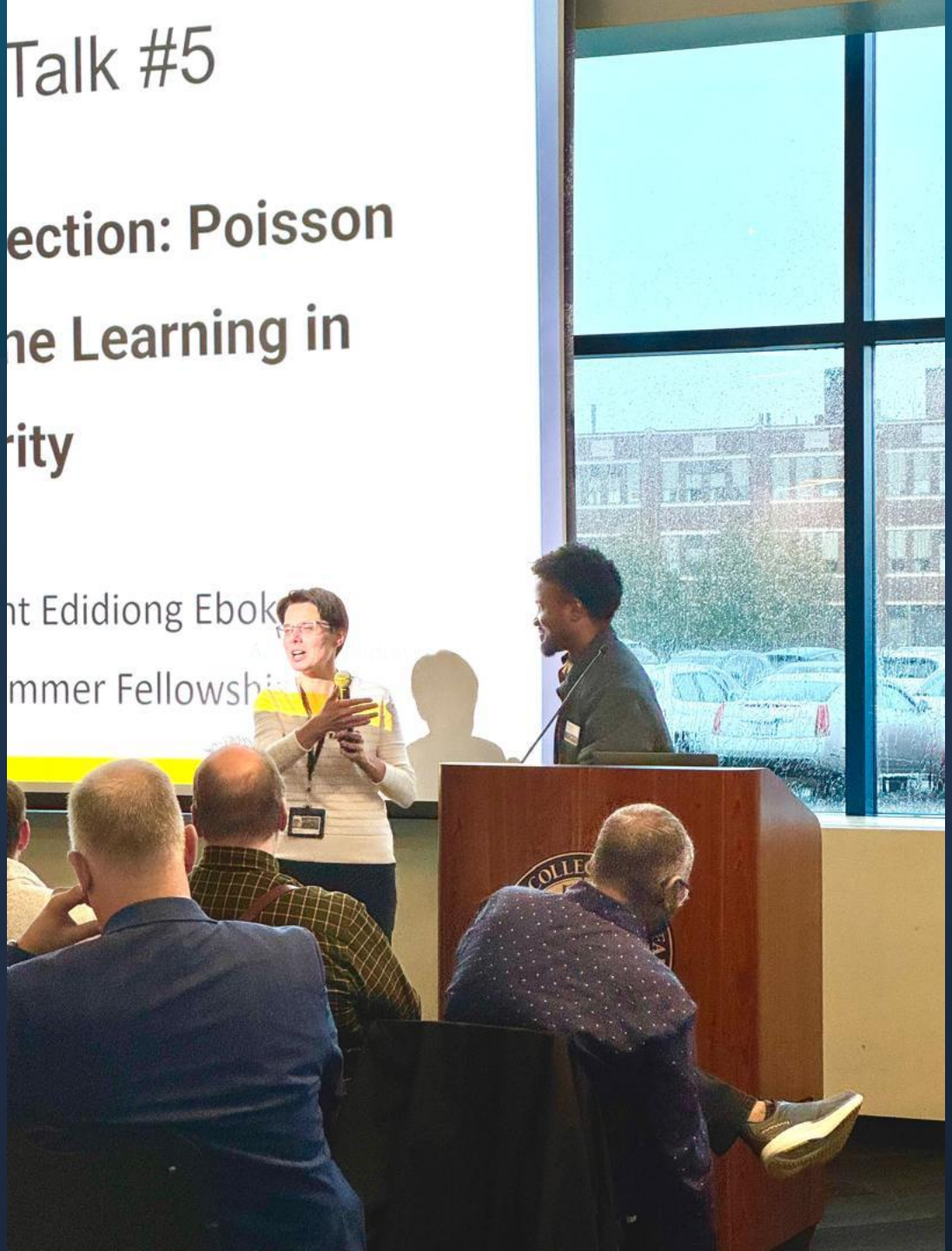
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