

## C S A T

## "Computing Without Exposing Data"

Dr. David Evans
Associate Professor at the
University of Virginia

Thursday, March 17<sup>th</sup> at 7PM in McGuffey 206



S T E M

Alice and Bob meet in a campus bar in 2017. Being sophisticated Radford students, they both have their genomes stored on their mobile devices and they want to perform a genetic analysis to ensure that their potential offspring would have strong immune systems and not be at risk for any recessive diseases. Alice doesn't want Bob to learn about her risk for Alzheimer's disease, and Bob is worried a future employer might misuse his genome.

C L U Two-party secure computation provides a way to solve this problem. It allows two parties to compute a function that depends on inputs from both parties, but reveals nothing except the output of the function. This talk will introduce methods that can enable secure computation, and describe systems we have built to make secure computation practical.

Dr. David Evans won the Outstanding Faculty Award from the State Council of Higher Education for Virginia in 2009, an All-University Teaching Award in 2008, and was Program Co-Chair for the 2009 and 2010 IEEE Symposia on Security and Privacy. He has SB, SM and PhD degrees in Computer Science from MIT.