

# Sam A. Markelon

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smarky7cd.github.io

## Education

2020–	<b>PhD in Computer Science, University of Florida</b> Florida Institute for Cybersecurity Research
2016–2020	<b>BS in Computer Science, University of Connecticut</b> Minor in Mathematics Summa Cum Laude Honors Scholar

## Professional Experience

Summer 2019	<b>NCC Group (New York, NY)</b> Cryptography Services Intern
Summer 2018	<b>Institut de Physique Nucléaire d'Orsay (Orsay, France)</b> Scientific Computing Intern
Summer 2017	<b>Jefferson National Laboratory (Newport News, VA)</b> Software Engineering Intern

## Teaching Experience

All as undergraduate teaching assistant at the University of Connecticut.

Spring 2020	<b>CSE 3400: Introduction to Computer and Network Security</b>
Fall 2019	
Spring 2019	<b>CSE 3150: C++ Essentials</b>
Fall 2018	<b>CSE 2050: Data Structures and Object Oriented Programming</b>

## Awards and Grants

2020	<b>University of Florida Graduate School Preeminence Award</b>
2019	<b>Barry M. Goldwater Scholarship</b>
2018	<b>University of Connecticut IDEA Grant</b> NTRUEncrypt implementation and usage research.
2016	<b>University of Connecticut STEM Scholar</b>

## Publications

### Journal and Conference Papers

1. **The DecCert PKI: A Solution to Decentralized Identity Attestation and Zooko's Triangle**  
Sam A. Markelon and John True.  
IEEE DAPPs 2022.
2. **A Semi-Quantum Extended B92 Protocol and its Analysis**  
Walter O. Krawec and Sam A. Markelon.  
Proc. SPIE 11391, Quantum Information Science, Sensing, and Computation XII, (24 April 2020).
3. **Genetic Algorithm to Study Practical Quantum Adversaries**  
W.O. Krawec and S.A. Markelon.  
ACM GECCO (2018) Kyoto Japan, pages 1270-1277.

### Posters and Poster Papers

4. **Discovery of Robust Protocols for Secure Quantum Cryptography**  
W.O Krawec and S.A. Markelon.  
ACM GECCO (2019) New York, NY, pages 379-380.
5. **gemcWeb: A Cloud Based Nuclear Physics Simulation Software**  
Sam A. Markelon.  
APS DNP CEU Poster Session, Fall 2017.

### Preprints

6. **Covert Message Passing over Public Internet Platforms Using Model-Based Format-Transforming Encryption**  
Luke A. Bauer, James K. Howes IV, Sam A. Markelon, Vincent Bindschaedler, and Thomas Shrimpton.  
arXiv:2110.07009.

## Extracurricular Activities

- **Association of Computing Machinery Student Chapter**  
Information Security (Cryptography) Group Leader
- **Upsilon Pi Epsilon**
- **UConn Mixed Martial Arts Club**  
Vice President, Treasurer