

# **Animesh Chhotaray**

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# **APPOINTMENTS**

Research Scientist Georgia Tech, USA 2023-

- Conduct research on cybersecurity of systems (especially cyberphysical systems and critical-infrastructure). My research entails discovering unique vulnerabilities, doing impact analysis via large-scale measurement studies and user studies, developing defenses with formal guarantees and building practical solutions for users to understand the security of their systems better
- Active member of INL's Education Working Group for DoE's Cyber-Informed-Engineering (CIE), and IEEE P3528 CIE Guide for CIE Curricula
- Lead adoption of CIE initiative at Georgia Tech. Co-authored CIE Curriculum Guide V1 with INL and other CIE university partners
- Co-manage Cyber-Physical System Security lab with Dr. Saman Zonouz.
- Teach OMSCS (online masters in computer science) graduate students cybersecurity and AI research
- Write grant proposals and research papers

#### Teaching Associate

2013-2015

KIIT University, Bhubaneswar, India

- Research: Develop image-encryption techniques using orthonormal and self-invertible matrices.
- Teaching: Programming in C, Computer Security.

Engineer 2011-2013

Samsung Research & Development Institute, NOIDA, India

- Worked for Systems team (FM driver) on feature phones with ARM based SoC ranging from 2G (48xx, 49xx) to 3G (68xx).
- Worked on code optimization, bug fixing and code stabilization through analysis RAM dumps and traces, and test cases performed for side effects.

# **EDUCATION**

#### PhD Computer Science

University of Florida

2017-2023 GPA: 3.8/4.0

- Dissertation Title: Provable-Security Treatment Of Circuit-Design Intellectual-Property Theft In Integrated-Circuit Supply Chain
- Courses: Computer Network Security, Penetration Testing, Advanced Data Structures, Introduction to Modern Cryptography, Network Algorithms and Data Structures, Analysis of Algorithms, Programming Language Principles, Computer Architecture, Computer and Information Security, Mathematics for Intelligent Systems, Automated Software and Hardware Verification, Applied Machine Learning

#### MS Computer Science

University of Florida

2015-2017 GPA: 3.8/4.0

BTech Computer Science

2007-2011

NIT Rourkela, India

GPA: 8.13/10

# **PUBLICATIONS**

- 6. T. Chattopdhyay, F. Ceschin, M. Garza, D. Zyunkin, A. Chhotaray, A. Stebner, S. Zonouz, R. Beyah, "One Video to Steal Them All: 3D-Printing IP Theft through Optical Side-Channels", ACM Conference on Computer and Communications Security (CCS), (2025).
- 5. A. Raymaker, R. Pickren, <u>A. Chhotaray</u>, F. Li, S. Zonouz, R. Beyah, "A Sea of Cyber Threats: Maritime Cybersecurity from the Perspective of Mariners", *ACM CCS*, (2025).
- 4. R. Pickren, <u>A. Chhotaray</u>, F. Li, S. Zonouz, R. Beyah, "Release the Hounds! Automated Inference and Empirical Security Evaluation of Field-Deployed PLCs using Active Network Data", *ACM CCS*, (2024).
- 3. A. Chhotaray, T. Shrimpton, "Hardening Circuit Design IP Against Reverse-Engineering Attacks", *IEEE Security & Privacy*, (2022).
- 2. W. Garcia, A. Chhotaray, J. Choi, S. K. Adari, K. Butler, S. Jha, "Brittle Features of Device Authentication", ACM CODASPY, (2021).
- A. Chhotaray, A. Nahiyan, T. Shrimpton, D. Forte, M. Tehranipoor, "Standardizing Bad Cryptographic Practice - A teardown of the P1735 IEEE standard for protecting electronicdesign intellectual property", ACM CCS, (2017).

### AWARDS AND RECOGNITION

- Outstanding Research Scientist award in 2025 by College of Computing, Georgia Tech
- Graduate Fellowship Award in 2019 and 2022
- CCS'17 paper resulted in 7 Common Vulnerabilities and Exposures (CVE) entries in the Vulnerability Notes Database
- CCS'17 paper featured in The Register, threatpost, The Hacker News, and other cybersecurity news publications

### **SERVICE**

- Program Committee member of Dependable Systems and Networks (DSN), 2025
- Judge of CoC Graduate Poster Symposium (2024), Project ENGAGES Summer Research Symposium (2025), and S.U.R.E Symposium (2025) at Georgia Tech
- External reviewer, Network and Distributed System Security (NDSS), 2020
- Sub-reviewer CRYPTO ACM WiSec, 2020

### MENTEES OUTSIDE GEORGIA TECH

- Kollin Labowski (PhD candidate, University of Florida)
- Marco Garza (UG senior, University of Texas at San Antonio)— co-author of paper "3D-Printing IP Theft through Optical Side-Channels" (ACM CCS'25)

• Khayri White (UG, junior, Howard University program 2025, Georgia Tech.	v)— won best presentation award in the S.U.R.E