

Christian Peeters

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PROFESSIONAL PROFILE

Forward-thinking researcher that has advanced the spaces of cellular network security and digital payment security through multiple publications at top tier security research venues. In addition to specialized security skills and project management abilities acquired through completing a PhD at the University of Florida, has experience in a wide array of skills across both computer hardware, software. Has a passion to learn new things and is not afraid to explore unfamiliar topics. Well versed in the business side of security through co-founding and assuming the role of Chief Technology Officer for the successful security startup Skim Reaper LLC.

EDUCATION

PH.D COMPUTER ENGINEERING

AUG, 2022

University of Florida

Gainesville, FL

- Dissertation: Developing End-to-End Security Solutions for Redirection Attacks in Legacy Telecommunications Infrastructure

M.SC COMPUTER ENGINEERING

DEC, 2020

University of Florida

Gainesville, FL

- Relevant Coursework: Computer Network Security, Computer System Security, Cryptography, Advanced Topics: Cellular Network Security, Advanced Algorithms, Advanced Datastructures, Distributed Operating Systems, VLSI Design, Digital Signal Processing, Computer Graphics

B.SC COMPUTER ENGINEERING & ELECTRICAL ENGINEERING

MAY, 2016

Elizabethtown College

Elizabethtown, PA

WORK

RESEARCH ASSISTANT

2016–NOW

Florida Institute for Cybersecurity Research

Gainesville, FL

- Research Interests: General Cybersecurity, Cellular Network Security, Digital Payment Security
- Authored over 10 different research projects, many of which have been published at top academic conferences in cybersecurity
- Lead several research projects that required managing time, resources, and the efforts of other PhD students
- Collaborated with researchers across several different academic backgrounds on joint projects

CHIEF TECHNOLOGY OFFICER

2018-2022

Skim Reaper LLC

Gainesville, FL

- Skim Reaper LLC is a small start-up company that spun off from a research publication I worked on at UF involving the detection of magnetic stripe card skimmers.
- Responsibilities: In charge of all product design and development. Point of contact with manufactures, testing labs, and electronics distributors.

PUBLICATIONS

C. Peeters, T. Tucker, A. Jain, K. Butler, P. Traynor **LeopardSeal: Detecting Rogue Base Stations with Acoustic Distance Bounding**, Accepted for Publication with Revisions at ACM Conference on Computer and Communications Security (CCS), 2022

C. Peeters, C. Patton, I. Sherman, D. Olszewski, T. Shrimpton, P. Traynor **SMS OTP Security (SOS): Hardening SMS-Based Two Factor Authentication**, In Proceedings of the 2022 ACM Asia Conference on Computer and Communications Security (ASIACCS), 2022. (Acceptance Rate: 24%)

S. King, P. Traynor, Z.A. Din, C. Peeters, and H. Venugopala **Credit Card Fraud Is a Computer Security Problem**, IEEE Security and Privacy Magazine Volume: 19, Issue: 2, 2021

H. Abdullah, M.S. Rahman, C. Peeters, W. Garcia, C. Gibson, T. Shrimpton, V. Bindschaedler, P. Traynor **Beyond Lp Clipping: Equalization based Psychoacoustic Attacks Against ASRs**, Asian Conference on Machine Learning (ACML), 2022. (Acceptance Rate: 29%)

N. Scaife, C. Peeters, and P. Traynor **More Cowbell: Lessons Learned in Developing the Skim Reaper**, IEEE Security and Privacy Magazine Volume: 17, Issue: 4, 2019

N. Scaife, J. Bowers, C. Peeters, G. Hernandez, P. Traynor, and L. Anthony **Kiss from a Rogue: Evaluating Detectability of Pay-at-the-Pump Card Skimmers**, In Proceedings of the IEEE Symposium on Security and Privacy (S&P), 2019. (Acceptance Rate: 12%)

H. Abdullah, W. Garcia, C. Peeters, P. Traynor, K. Butler and J. Wilson **Practical Hidden Voice Attacks against Speech and Speaker Recognition Systems**, Network and Distributed System Security Symposium (NDSS), 2019. (Acceptance Rate: 17%)

N. Scaife, C. Peeters, and P. Traynor, **Fear the Reaper: Characterization and Fast Detection of Card Skimmers**, 27th USENIX Security Symposium, 2018. (Acceptance Rate: 19.1%)

N. Scaife, C. Peeters, C. Velez, H. Zhao, P. Traynor, and D. Arnold, **The Cards Aren't Alright: Detecting Counterfeit Gift Cards Using Encoding Jitter**, In Proceedings of the IEEE Symposium on Security and Privacy (S&P), 2018. (Acceptance Rate: 11.5%)

C. Peeters, H. Abdullah, N. Scaife, J. Bowers, P. Traynor, B. Reaves, and K. Butler, **SONAR: Detecting SS7 Redirection Attacks With Audio-Based Distance Bounding**, In Proceedings of the IEEE Symposium on Security and Privacy (S&P), 2018. (Acceptance Rate: 11.5%)

PATENTS

Method, Apparatus, And System For Detecting Card Skimming Devices (2021). NPROV Appl. No. 17/447,092

Method, Apparatus, And Computer Program Product For Secure Two-Factor Authentication (2021). NPROV Appl. No. 17/446,023

Detecting SS7 Redirection Attacks With Audio-Based Distance Bounding (2021). U.S. Patent No. 11265717

Payment Card Overlay Skimmer Detection (2019). U.S. Patent No. 10936928

Detecting Counterfeit Magnetic Stripe Cards Using Encoding Jitter (2018). U.S. Patent No. 10803261

SKILLS

Security and Research Skills :

Network Security	Telecommunication Security	Digital Payments Security	Reverse Engineering
System Security	Threat Modeling	Cryptography	Firmware Security
Protocol Design	Academic Paper Writing	Formal Research Presentation	Project Management

Programming Languages :

C	C++	Python	Rust	Assembly(x86, ARM)	C#
Swift	Java	Elixir	HTML/CCS	Erlang	Verilog

Software :

Android Development	Firmware Development	Digital Communications	Watchdog Monitoring
Git	Bash	Advanced Algorithms	Data Structures

Hardware/Electrical :

Analog/Digital Circuit Design	Digital Logic Design	Embedded System Design	Wireless Communications
Memory Access	Control Systems	ARM Microcontrollers	FPGAs
Autodesk Eagle	Product Design	Signal Processing	Software Defined Radios