

Bhupendra Acharya

Curriculum Vitae

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Research Interests

Web and Network Security; Phishing, Scams and Abuses; Applied Security Attack, Detect and Defenses.

Education

- Jan 2018 – **Doctoral in Engineering and Applied Sciences**
Dec 2023 Department of Computer Science, University of New Orleans
Thesis: Analyzing the Robustness of Social Engineering Attacks on Defense Systems
- Jan 2018 – **MS in Computer Science (Cyber Security)**
Dec 2020 Department of Computer Science, University of New Orleans
Thesis: PhishPrint: A Novel Framework for Scalable Evaluation of Web Security Crawlers and Mining of Unknown Cloaking Vectors
- Jan 2007 – **BS in Computer Science**
Dec 2010 Department of Computer Science, Cameron University

Academic Experience

- Mar 2023 – **Postdoctoral Researcher.** CISPA Helmholtz Center for Information Security, Germany.
Present Advisor: Dr. Thorsten Holz
- Jan 2018 – **Teaching / Research Assistant (PhD Student),** University of New Orleans, LA, US.
Dec 2022 Supervisor/Advisor: Dr. Mahdi Abdelguerfi / Dr. Phani Vadrevu

Industrial Experience

- 2021 - 2022 – **QA/SDE-T Payments and Devices.** Amazon Inc.
2013 - 2018 Seattle, WA and Sunnyvale, CA, US.
- 2012 - 2013 – **SDE-T/Web and DB.** Raima Inc.
Seattle, WA, US.
- 2011 - 2012 – **SDE-T/Payments CRM Dynamics.** Microsoft Inc (Contracting via PeopleTech Group).
Redmond, WA, US.

Honors and Awards

- 2022 **Innovative and Think Big,** HackaFire Amazon Fire TV and Devices Awards
2021 **Offensive Attack,** Google Vulnerability Rewards (Twice)
2021-2022 **Conference Grants,** USENIX Registration (2021), DIMVA Travel (2022)
2007-2010 **List of Honors,** Cameron University Dean's List

Publications (peer-reviewed)

[1] Bhupendra Acharya, Muhammad Saad, Antonio Emanuele Cinà, Lea Schönherr, Hoang Dai Nguyen, Adam Oest, Phani Vadrevu, Thorsten Holz. **Conning the Crypto Conman: End-to-End Analysis of Cryptocurrency Technical Support Scams**. In *Proceedings of the 45th IEEE Symposium on Security and Privacy (IEEE S&P)*, 2024.
Acceptance Rate: 100/582 (17.18%)

[2] Hoang Dai Nguyen, Karthika Subramani, Bhupendra Acharya, Roberto Perdisci, Phani Vadrevu. **C-FRAME: Characterizing and Measuring in-the-wild CAPTCHA Attacks**. In *Proceedings of the 45th IEEE Symposium on Security and Privacy (IEEE S&P)*, 2024.
Acceptance Rate: 70/601 (11.64%)

[3] Bhupendra Acharya, Phani Vadrevu. **A Human in Every APE: Delineating and Evaluating the Human Analysis Systems of Anti-Phishing Entities**. In *Proceedings of the 19th Conference on Detection of Intrusions and Malware & Vulnerability Assessment (DIMVA)*, 2022.
Acceptance Rate: 11/39 (28.2%)

[4] Bhupendra Acharya, Phani Vadrevu. **PhishPrint: Evading Phishing Detection Crawlers by Prior Profiling**. In *Proceedings of the 30th USENIX Security Symposium (USENIX Security)*, 2021.
Acceptance Rate: 246/1316 (18.7%)

Research (under review at conferences)

[5] The Imitation Game: Exploring Brand Impersonation Attacks in Social Media [Round 1, USENIX Sec Winter'24]

Research (in pipeline to submissions 2-4 months)

[6] ScamChatBot: Analysis of Fake Account Recovery in Social Media via LLMs-based Automated Chat Conversations with Scammers (*CISPA student's Master thesis work, Target CCS April 29, 2024*)

[7] PhishTail: Measurement Study on Long Tail of Phishing Target via Wiki-Centric Corpuses. (*External collaboration, Target CCS April 29, 2024*)

[8] GhostCoins: Exploration of Scamming Cryptocurrency Wallets in the Android Apps and Extensions. (*CISPA student's Bachelor thesis work, Target TBD*)

[9] Analysis of Regional and Categorical Filterlists Biasedness in the Web (*external collaboration, Target TBD*)

[10] Buy and Sale of Social Media Profiles (*CISPA student's Master thesis work, Target TBD*)

Teaching

CS 2467 Systems Programming and Concept, Instructor

2021: Spring and Summer Semesters

2020: Spring, Summer, and Fall Semesters

University of New Orleans, LA, US

CS 2450 Machine Language and Assembly, Instructor

2021: Fall Semester

University of New Orleans, LA, US

Academic Service

2023 Artifact Evaluation Committee, ACM CCS
Artifact Evaluation Committee, USENIX Security

2024
Artifact Evaluation Committee, USENIX Security

Mentoring Students

Graduate

2023 - 2024	Dominik Sautter , Saarland University, Germany, Thesis Research .
2024 - Present	Mario Beluri , Saarland University, Germany, Thesis Research .
2024 - Present	Marjo Toska , Saarland University, Germany, Thesis Research .
2024 - Present	Ady Elouej , Saarland University, Germany, Thesis Research .
2024 - Present	Nilaa Maharjhan , Saarland University, Germany, Thesis Research .

Undergraduate

2023 – 2024	Laura Thineta Maulia , Saarland University, Saarbrücken, Germany, Thesis Research .
2024 – Present	Andreas Brix , Saarland University, Saarbrücken, Germany, CyberSecurity Projects .

Invited Talks

2024 University of New Mexico

Title: Cloak and Scam: Creating Honeypots to Measure Present-Day Internet Defense Mechanisms
Inviting CS Faculty: Dr. Afsah Anwar

2024 Tulane University

Title: How Safe Is the Web? Analyzing the Robustness of Prevalent Social Engineering Defenses
Inviting CS Faculty: Dr. Zizhan Zheng

2023 California State LA

Title: Analyzing the Robustness of Prevalent Social Engineering Defense Mechanisms
Inviting CS Faculty: Dr. Raj S. Pamula

Last Updated

March 10, 2024
