Bhupendra Acharya

Curriculum Vitae

Saarbrucken, Germany

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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

Jan 2007 – BS in Computer Science

Dec 2010 Department of Computer Science, Cameron University

Mining of Unknown Cloaking Vectors

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

[5] <u>Bhupendra Acharya</u>, Dario Lazzaro, Efren Lopez Morales, Adam Oest, Muhammad Saad, Antonio Emanuele Cinà, Lea Schönherr, Thorsten Holz. **The Imitation Game: Exploring Brand Impersonation Attacks on Social Media Platforms.** In Proceedings of the 33rd USENIX Security Symposium (USENIX Security), 2024.

[4] <u>Bhupendra Acharya</u>, 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%)

[3] Hoang Dai Nguyen, Karthika Subramani, <u>Bhupendra Acharya</u>, 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%)

[2] <u>Bhupendra Acharya</u>, 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%)

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)

[6] ScamChatBot: An End-to-End Analysis of Fake Account Recovery on Social Media via Chatbots [Round 1, NDSS'24]

[7] End-to-End Analysis of Scam Donation in Social Media [Round 1, NDSS'24]

[8] HoneySat: A Framework for Satellite Honeypot Media [Round 1, NDSS'24]

Research (in pipeline to submissions)

[9] Abuse Study on Forms [Target USENIX Sec, Sep 2024]

[10] Social Media-based Abuse Study on Pig-butchering [Target USENIX Sec, Sep 2024]

[11] Buy and Sale of Social Media Profiles (Student's Thesis work, Target WWW, Oct 2024)

[12] Abuse Study by Expired Domains [Target IEEE S&P, Nov 2024]

[13] Measurement Study on Long Tail of Phishing Target via Wiki-Centric Corpuses. [Target IEEE S&P, Nov 2024]

[14] Filterlists biased Study [Rejected from CCS 2024/Target TBD]

Academic Service

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

2024

Artifact Evaluation Committee, USENIX Security

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

Supervising Thesis Students

Graduate

2024 – Present	Abdullah Alfurjani, Saarland University, Germany, Thesis Research
2024 – Present	Amala Augustine, Saarland University, Germany, Thesis Research
2024 - Present	Mario Beluri, Saarland University, Germany, Thesis Research
2024 - Present	Lie Sue Chung, Saarland University, Germany, Thesis Research
2024 - Present	Sagar Kishore, Saarland University, Germany, Thesis Research
2023 - 2024	Dominik Sautter**, Saarland University, Germany, Thesis Research

Undergraduate

2024 – Present	Andreas Brix, Saarland University, Saarbrucken, Germany, CyberSecurity Projects
2024 – Present	Ady Elouej, Saarland University, Saarbrucken, Germany, Thesis Research
2024 – Present	Louai Alkhatib, Saarland University, Saarbrucken, Germany, Thesis Research
2024 – Present	Christoph Petersen, Ruhr University, Bochum, Germany, Thesis Research
2023 – 2024	Laura Thineta Maulia**, Saarland University, Saarbrucken, Germany, Thesis Research

** Alumni student who already completed thesis work and graduated.

Invited Talks

April 2024	<u>Title: Empirical Study on Web Attacks and Abuses</u> Texas A&M, Kingsville, TX Inviting CS Faculty: Dr. Avdesh Mishra
Feb 2024	<u>Title: Cloak and Scam: Creating Honeypots to Measure Present-Day Internet Defense</u> Mechanisms University of New Mexico, New Mexico, NM Inviting CS Faculty: Dr. Afsah Anwar
Nov 2023	<u>Title: How Safe Is the Web? Analyzing the Robustness of Prevalent Social Engineering Defenses</u> Tulane University, New Orleans, LA Inviting CS Faculty: Dr. Zizhan Zheng
Jan 2023	<u>Title: Analyzing the Robustness of Prevalent Social Engineering Defense Mechanisms</u> California State LA, Los Angeles, CA Inviting CS Faculty: Dr. Raj S. Pamula

Writing

Grant WriteDFG Grant, Currently, I am writing a Grant with Dr. Tobias Urban (Westphalian University of
Applied Sciences, Germany) on "Making Web Safer and Private". (Target: Aug 15, 2024)

Book Write I am currently writing a book called "Advanced Web Security".

Last Updated

Jun 22, 2024