TAPTI PALIT

CRA Computing Innovation Fellow, Purdue University
tpalit@purdue.edu ◇ https://taptipalit.github.io ◇ (631) · 480 · 7644

EDUCATION

- **PhD in Computer Science** *Oct 2021*
  Stony Brook University, Stony Brook NY
  Thesis: Selective Data Encryption: A Scalable Defense against Sensitive Data Leakage
  Advisor: Dr. Michalis Polychronakis
- **Masters in Computer Science** *Aug 2015*
  Stony Brook University, Stony Brook NY
  Thesis: Benchmarking Network-Intensive Applications
  Advisor: Dr. Mike Ferdman
- **Bachelors in Computer Science** *May 2009*
  Mumbai University, MH, India

PROFESSIONAL EXPERIENCE

- CRA Computing Innovation Fellow *(started)* Oct 2021
  Purdue University
  Supervisor: Dr. Pedro Fonseca
  Research on static program analysis and cross-stack security defenses.
- Research Assistant Jan 2017 - Oct 2021
  Stony Brook University
  Supervisor: Dr. Michalis Polychronakis
  Research on sensitive data isolation and static program analysis.
- Research Engineer Intern May 2018 - Aug 2018
  Zeropoint Dynamics
  Supervisor: Dr. Kevin Snow
  Research on binary clone detection using symbolic execution.

PUBLICATIONS

- Dinglan Peng, Congyu Liu, **Tapti Palit**, Pedro Fonseca, Anjo Vahldiek-Oberwagner, Mona Vij. "SWITCH: Fast Kernel Context Isolation with Implicit Context Switches" in 2023 IEEE Symposium on Security and Privacy. S&P 2023.
- Seyedhamed Ghavamnia, **Tapti Palit**, and Michalis Polychronakis. "C2C: Fine-grained Configuration-driven System Call Filtering" in CCS '22: Proceedings of the 2022 ACM SIGSAC Conference on Computer and Communications Security, 2022.
- **Tapti Palit**, Jarin Firose Moon, Fabian Monrose, and Michalis Polychronakis. "DynPTA: Combining Static and Dynamic Analysis for Practical Selective Data Protection" in 2021 IEEE Symposium on Security and Privacy. S&P 2021.
- **Tapti Palit**, Fabian Monrose, and Michalis Polychronakis. "Mitigating Data-only Attacks by Protecting Memory-resident Sensitive Data." In ACM Digital Threats: Research and Practice (DTRAP) (2020) *(Extended Version)*
- Seyedhamed Ghavamnia, **Tapti Palit**, Shachee Mishra, and Michalis Polychronakis. "Temporal System Call Specialization for Attack Surface Reduction." In 29th USENIX Security Symposium (USENIX Security 20). 2020.

- Seyedhamed Ghavamnia, **Tapti Palit**, Azzedine Benameur, and Michalis Polychronakis. "Confine: Automated System Call Policy Generation for Container Attack Surface Reduction." In Proceedings of the International Conference on Research in Attacks, Intrusions, and Defenses (RAID). 2020.
- **Tapti Palit**, Fabian Monrose, and Michalis Polychronakis. "Mitigating Data Leakage by Protecting Memory-resident Sensitive Data." In Proceedings of the 35th Annual Computer Security Applications Conference. 2019.
- Shenghsun Cho, Amoghavarsha Suresh, **Tapti Palit**, Michael Ferdman, and Nima Honarmand. "Taming the Killer Microsecond." In 2018 51st Annual IEEE/ACM International Symposium on Microarchitecture (MICRO). IEEE, 2018.
- **Tapti Palit**, Yongming Shen, and Michael Ferdman. "Demystifying Cloud Benchmarking." In 2016 IEEE international symposium on performance analysis of systems and software (ISPASS). IEEE, 2016.
- Varun Agrawal, Abhiroop Dabral, **Tapti Palit**, Yongming Shen, and Michael Ferdman. "Architectural Support for Dynamic Linking." In Proceedings of the Twentieth International Conference on Architectural Support for Programming Languages and Operating Systems. 2015.

PROFESSIONAL SERVICE

- Program Committee Member for ASPLOS 2024
- Program Committee Member for ISC 2023
- Program Committee Member for DIMVA 2023, 2022
- Subreviewer for IEEE S&P 2021
- Reviewer for ACM Journal: Transactions on Privacy and Security *(TOPS)*, 2020
- Subreviewer for CCS, 2020
- External Reviewer for DIMVA 2020
- Subreviewer for RAID, 2019
- Subreviewer for NDSS, 2018

TEACHING EXPERIENCE

- Guest Lecturer
  - CS 408 *(Software Testing)*, Purdue University, Spring 2023
- Teaching Assistant
  - CSE 502 *(Computer Architecture)*, Stony Brook University, Spring 2016
  - CSE 391 *(Cloud Computing)*, Stony Brook University, Fall 2015
  - CSE 506 *(Operating Systems)*, Stony Brook University, Fall 2015

DIVERSITY AND INCLUSION WORK

- Member of the Diversity Committee in the Department of Computer Science at Stony Brook University
- E-board Member of the Women in PhD graduate club
- Instructor at High School WISE program for under-represented groups in Computer Science