Sachin Kumar Singh

University of Utah   sachinkumar.singh@utah.edu
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RESEARCH INTERESTS

My research interests are in the broad areas of **security**, **privacy**, & **internet measurement**. I am interested in developing new tools and techniques to advance the understanding of security and privacy issues, by leveraging internet measurement and data-driven analysis.

EDUCATION

Ph.D. Computer Science   *Jan, 2021 – Jul, 2025**
Kahlert School of Computing, University of Utah   CGPA: *3.93/4*
Advised by *Prof. Robert Ricci*

B.Tech. Computer Science & Engineering   *Jul, 2016 – Sep, 2020*
Dr. A.P.J. Abdul Kalam Technical University, India   CGPA: *8.3/10*
Thesis: A *(k, n)* Audio Secret Sharing with Share Authentication
Advised by *Prof. Mainejar Yadav*

EXPERIENCE

Research Intern, Softsec Lab   *May, 2024 – Aug, 2024*
Ruhr University Bochum, Germany
Advised by *Prof. Kevin Borgolte*

Visiting Researcher   *Jul, 2023 – May, 2024*
University of California Davis
Advised by *Prof. Alexander Gamero-Garrido*

Research Assistant, Flux Research Group   *May, 2021 – May, 2024*
University of Utah
Advised by *Prof. Robert Ricci*

Teaching Assistant, University of Utah   *Jan, 2021 – May, 2021*
Supervised by *Prof. David Johnson*

Data Science and Analytics Intern   *Jan, 2018 – Feb, 2018*
Indian Institute of Management, Lucknow

PUBLICATIONS

Where The Wild Things Are: Brute-Force SSH Attacks In The Wild And How To Stop Them
Sachin Kumar Singh, Shreeman Gautam, Cameron Cartier, Sameer Patil, and Robert Ricci. In 21st USENIX Symposium on Networked Systems Design and Implementation (NSDI 2024) ↗.

Skills

- **Programming:** Python, Python Libraries (Pandas, Numpy, Matplotlib, BeautifulSoup, etc.), C, C++, R, shell scripting.

- **Techniques:** Data Cleaning, Data Analytics, Data Visualization, Data Processing, Feature Engineering, Web-Crawling, Internet Measurements, RIPE infrastructure, Computational Social Science.

Professional Services

Program Committee

- Privacy Enhancing Technologies Symposium (PETS) 2025.
- 6th Workshop on CPS & IoT Security and Privacy, co-located with the ACM Conference on Computer and Communications Security 2024.
- 9th International Workshop on Traffic Measurements for Cybersecurity (WTMC 2024) co-located with 9th IEEE European Symposium on Security and Privacy.

Artifact Evaluation Committee

- 2024:
  - Network and Distributed System Security (NDSS) Symposium
  - 33rd USENIX Security Symposium
  - ACM Special Interest Group on Data Communication (SIGCOMM)
- 2023:
  - ACM Conference on Computer and Communications Security (CCS)
  - 32nd USENIX Security Symposium
  - 17th Workshop on Offensive Technologies (WOOT), co-located with IEEE S&P
  - ACM EuroSys 2023

Talks

- "Where The Wild Things Are: Brute-Force SSH Attacks In The Wild And How To Stop Them" at USENIX NSDI 2024.

- "Lessons From Four Years of SSH Break-In Attempts on a Production Facility and Countermeasure" at Cybersecurity Summer Institute 2023, Georgia Institute of Technology, Atlanta, USA.

Fellowship & Awards

- Fellow at the Summer Research Institute on Systems, Security, and Privacy 2023 at École Polytechnique Fédérale de Lausanne, Switzerland.

- Fellow at the Second Annual Cybersecurity Summer Institute 2023, Georgia Institute of Technology, Atlanta, USA.

- Pre-doctoral Fellow at the Cornell, Maryland, Max Planck Pre-doctoral Research School 2022, Max Planck Institute for Software Systems, Saarbrücken, Saarland, Germany.