Aafaq Sabir

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Raleigh, North Carolina, USA

EDUCATION

North Carolina State University (NCSU)

Ph.D. Computer Science (CGPA: 4.0/4.0), Advisor: Dr. Anupam Das *August 2021 — May 2026 (Expected)*
MS Computer Science (CGPA: 4.0/4.0) *December 2024*

Lahore University of Management Sciences (LUMS)

BS Computer Science (CGPA 3.57/4.0) *August 2016 — May 2020*

EXPERIENCE

WSPR Lab @ North Carolina State University (NCSU) Raleigh, North Carolina
Graduate Research Assistant (4th year PhD student) *Aug 2021 — Present*
- I do user privacy and compliance research on Smart Voice Assistants and IoT devices involving developing AI-based compliance enforcement tools, user studies and online targeted advertisement
- **Research Interests:** Compliance, Human-centered Security and Privacy, User profiling and Targeted ads

Allthenticate Houston, Texas
Software Engineer (Summer Intern) *May — Aug 2023*
- As a summer SWE intern (Full-stack Software Engineer) I developed components of the admin portal built on Flask, Vue 3, MongoDB, and SQL. Updated SQL scheme to support new features
- Improved the event logging for more granular controls and history for customers and company itself
- Analyzed logs and estimated the efficiency of company's security products

North Carolina State University (NCSU) Raleigh, North Carolina
Instructor and Administrator *May — July 2025*
- Appointed as Instructor and Administrator for CSC 116 Intro to Programming in Java
Teaching Assistant *Jan — May 2023*
- Appointed as TA for CSC 574 (Computer and Network Security): Delivered lecture on Anonymous Communication

Educative.io Lahore, Pakistan
Technical Content Engineer *Aug 2020 — Sep, 2021*
- I created Vue 3 (JavaScript framework) course along with several other courses on programming languages

PUBLICATIONS

- Analyzing Ad Prevalence, Characteristics, and Compliance in Alexa Skills. Accepted in *IEEE S&P 2025*. Aafaq Sabir, Abhinaya S.B., Dilawer Ahmed, and Anupam Das.
- Spying through your voice assistants: realistic voice command fingerprinting. *USENIX Security 2023*. Dilawer Ahmed, Aafaq Sabir, and Anupam Das.
- Speaker Orientation-Aware Privacy Control to Thwart Misactivation of Voice Assistants. 2023 53rd Annual IEEE/IFIP International Conference on Dependable Systems and Networks (*DSN*). Shaohu Zhang, Aafaq Sabir, and Anupam Das.
- Hey Alexa Who am I talking to?: Analyzing User's Perception and Awareness regarding Third-party Alexa Skills. *CHI 2022*. Aafaq Sabir, Evan Lafontaine, and Anupam Das.
- Analyzing the Impact and Accuracy of Facebook Activity on Facebook Ad-Interest Inference Process. *CSCW 2022*. Aafaq Sabir, Evan Lafontaine, and Anupam Das.
- Understanding the Privacy Implications of Adblock Plus's Acceptable Ads. *ASIACCS 2021* Ahsan Zafar, Aafaq Sabir, Dilawer Ahmed, and Anupam Das. .

SKILLS

- **Analytics/Research**: Fine-tuning LLMs, ML (Tensor-flow), Statistical Analysis (regression, ANOVA, multivariate methods), Qualitative and Quantitative methods, Algorithmic Auditing, Causal inference
- **Cloud computing**: AWS, GCP, Local org cloud servers
- **Dev stack**: Node.js, Vue.js, Express, MongoDB, Browser Extension, Android Dev
- **Programming languages/Tools**: Python, R, C++, C, JavaScript, Golang, Java, SQL, MongoDB, Docker

Bug Bounties: Received $200 Bug Bounty in Amazon Vulnerability Research Program - Devices (2024)

SOFTWARE ENGINEERING PROJECTS

CheckMate: Built an online platform to conduct a coding competition. The web app runs the submitted code (currently supports C++) and evaluate the results based on the provided test cases and updates the leaderboard
QAnon: Built a truly anonymous question answering platform on MERN stack with the functionality of comment replies

NOTABLE COURSES

Grad: Computer and Network Security, Cryptography, OS Security, Adv Internet Protocols, Compiler Construction
Undergrad: Artificial Intelligence, Network Security, Software Engineering, NLP, Operating systems, Algorithms

REFERENCES

Dr. Anupam Das (anupam.das@ncsu.edu) and Dr. Dominik Wermke (dwermke@ncsu.edu)