

AHSAN ZAFAR

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EDUCATION

Lahore University of Management Sciences

Bachelor of Science in Computer Science, CGPA:3.36/4.00

Aug. 2016 – May. 2020

Lahore, Pakistan

North Carolina State University

Ph.D in Computer Science, CGPA:3.75/4.00

Jan. 2021 – Present

Raleigh, NC

RELEVANT COURSEWORK

- Data Structures
- Computer Networks
- Discrete Mathematics
- Program Analysis
- Operating Systems
- Database Management
- Computer Architecture
- Network Security

EXPERIENCE

North Carolina State University

Graduate Research Assistant

Jan. 2021 – Present

Raleigh, NC

- As the first author, successfully published a paper on the privacy implications of the Adblock Plus' Acceptable Ads Initiative to the **6th ACM ASIA Conference on Computer and Communications Security (ASIACCS 2021)**
- Led efforts to standardise internet measurement techniques using state-of-art network tracing suites such as mitmproxy and instrumented V8

Microsoft

Data Science Intern

May. 2022 – July 2022

Redmond, WA

- Worked on risk analysis as part of the Dynamic Fraud Protection (DFP) service
- Developed an automated discovery and testing tool that finds novel fingerprintable features in the wild.
- Discovered 15 new fingerprinting attributes and properties including features for bot and VM detection.

The Radical Group

Software Engineer

June. 2020 – Dec. 2020

Lahore, Pakistan

- Developed an e-commerce mobile application that seeks to digitize \$59 billion strong agricultural industry in Pakistan using React Native and Google's Firebase.
- Created and executed automated test plans, cases and scripts to identify and document application bugs
- Worked hand-in-hand with design team to correct erroneous design flows that increased average user engagement ten fold within three months

Lahore University of Management Sciences

Technical Specialist

July. 2019 – Oct. 2019

Lahore, Pakistan

- Collaborated in a research study to evaluate the spread and impact of gender bias in the Pakistani print media
- Used **latent semantic analysis** to create a bias-testing algorithm that flags biased text in the print media
- Formulated our findings on gender bias based on 1.5 million local news articles and submitted a paper to a top human computer interactive conference

PROJECTS

Evolution of Adblock Plus' Acceptable Ads

July 2020

- Conducted longitudinal analysis on the growth of list-based ad-blocking and ad-accepting mechanisms that are part of applications used by more than 750 Million users worldwide
- Successfully submitted and defended our findings during poster session at **41st IEEE Symposium on Security and Privacy 2020**
- As the first author, submitted a paper on the comparative privacy analysis of top five android mobile browsers

Static Code Analysis

October 2019

- Used LLVM to construct control flow graphs of code units written in C++
- Demonstrated code optimization of randomly sampled github programs using forward and backward data flow analysis

TECHNICAL SKILLS

Languages: C++/C, Python, JavaScript, Ruby, Haskell, HTML/CSS, SQL

Developer Tools: VS Community, L^AT_EX, Git, MATLAB(Basic)

Technologies/Frameworks: React/React-Native, Node.js, Dockers, Firebase, LLVM, KLEE, Django, GitHub