

Abdul Haddi Amjad

hadiamjad.com

linkedin/abdul-hadi-amjad

Email : hadiyoville25@gmail.com

github/hadiamjad

RESEARCH INTEREST

- Security & Privacy
- Software Engineering & Code Refactoring

OPEN SOURCE BUG HUNTING WITH WEBCHECK

We have reported the following issues to EasyList and EasyPrivacy authors on GitHub:

- #18244, #18243, #18242, #18230, #18185

EDUCATION

- **Virginia Tech** Blacksburg, USA
Ph.D. Candidate in Computer Science Aug. 2021 – Present
 - My research involves improving user privacy on websites by leveraging program analysis techniques.
 - **Advisor:** Dr.Muhammad Ali Gulzar
 - **Co-Advisor:** Dr.Zubair Shafiq
- **National University of Computing and Emerging Sciences** Lahore, Pakistan
Bachelor of Science in Computer Science; GPA: 3.83/4.00 Aug. 2017 – Aug. 2021

RESEARCH WORK

- **Blocking Tracking JavaScript at the Function Granularity:** Developed NoT.JS, a privacy-enhancing JavaScript blocking tool that operates at a fine-grained, function-level granularity to detect and remove tracking functions while preserving website functionality. Achieved 94% precision and 98% recall in evaluating top websites, outperforming existing methods and resisting obfuscation techniques.
 - **Paper:** *here*
 - **Repository:** *here*.
 - This work is published at **ACM Conference on Computer and Communications Security (CCS), 2024**
- **Blocking JavaScript without Breaking the Web: An Empirical Investigation:** Conducted a large-scale study on 100K websites to evaluate the feasibility of JavaScript blocking without breaking legitimate functionality. Identified that fine-grained blocking of specific JavaScript functions reduces major breakage by 3.8X while maintaining effective tracking prevention.
 - **Paper:** *here*
 - **Video:** *here*.
 - **Repository:** *here*.
 - This work is published at **Proceedings on Privacy Enhancing Technologies Symposium (PETS), 2023**
- **TrackerSift: Untangling Mixed Tracking and Functional Web Resources:** Developed TrackerSift, a tool that untangles mixed web resources by progressively classifying them at multiple granularities, from domain to method level. Achieved 98% accuracy in attributing script-initiated network requests to either tracking or functional resources at the finest granularity.
 - **Paper:** *here*.
 - **Repository:** *here*.
 - **Video:** *here*.
 - This work is published at **ACM Internet Measurement Conference (IMC), 2021**.

EXPERIENCE

- **Virginia Tech** Blacksburg, USA
Graduate Research Assistant in SEED Lab Aug 2021 - Present
- **Brave Software Inc** San Francisco, USA
Data Privacy Research Intern May 2023 - Jul 2023
 - **Security Encryption in Brave Talk** : Worked on Solana NFT token-gating for Web3 brave-talk calls
- **Brave Software Inc** San Francisco, USA
Ads and Privacy Research Intern May 2022 - Jul 2022
 - **Security Encryption in Brave Talk** : Worked closely with the Brave Talk team to introduce end-to-end communication encryption.
- **Educative Inc** Lahore, Pakistan
Edpresso Lead May 2019 - July 2021
 - **Managed Edpresso** : Educative is fastest growing start-up and I led their Edpresso team for almost three years. We worked on creating free content for software developers. Right now Edpresso has more than 3 million views per month and creates largest organic traffic fro Educative.
- **FAST National University** Lahore, Pakistan
Teaching Assistant - Data Structures & Database Systems - Dr.Saira Karim & Dr.Zareen Alamgir 2020

INVITED TALKS

- **IEEE S&P**: Presented my NoT.JS project and explored its potential for supporting Google's privacy budgeting initiative.
- **Invited Speaker at Google Privacy Sandbox**: Presented my NoT.JS project and explored its potential for supporting Google's privacy budgeting initiative.
- **Ad-Filtering Developer Summit 2023**: Demystifying the Mystery of Privacy-Invasive JS Functions My talk is available on youtube: [here](#).
- **Ad-Filtering Developer Summit 2022**: What's the next era of content blockers? My talk is available on youtube: [here](#).
- **Ad-Filtering Developer Summit 2021**:How to disentangle tracking code from functional? My talk is available on youtube: [here](#).

COMMUNITY SERVICE

- *Co-author and Data Analyst for the JavaScript chapter of the 2024 Web Almanac*
- *PETS Artifacts Committee Member*

REFERENCES

- **Dr.Muhammad Ali Gulzar**: gulzar@cs.vt.edu
- **Dr.Zubair Shafiq**: zubair@ucdavis.edu
- **Dr.Igor Bilogrevic**: ibilogrevic@google.com