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EDUCATION

University of Waterloo

PhD in Computer Science, Current CGPA: 94 / 100

Waterloo, Ontario, Canada

September 2021 - Present

Indian Institute of Technology (IIT) Bombay

Master of Technology in Computer Science and Engineering, GPA: 9.88 / 10

Mumbai, Maharashtra, India

July 2016 - August 2019

Nirma University of Technology

Bachelor of Technology in Computer Engineering, GPA: 8.34 / 10

Ahmedabad, Gujarat, India

August 2011 - May 2015

RESEARCH PUBLICATIONS

Ariadne

Ariadne - Navigating through the Labyrinth of Data-Driven Customization Inconsistencies in Android July, 2025

Usenix Security Symposium

- Parjanya Vyas, Haseeb Ur Rehman Faheem, Yousra Aafer, and N. Asokan "34th USENIX Security Symposium (USENIX Security 25), 2025"

Android Automotive Analysis

Red Light for Security - Uncovering Auto FeatureCheck and Access Control Gaps in AAOS

DIMVA 2025

July, 2025

- Jumana, Parjanya Vyas, Yousra Aafer "DIMVA 2025"

RepFinder

ACM International Conference on Automated Software Engineering

A Longitudinal Analysis Of Replicas in the Wild Wild Android

October, 2024

- SMA Zaidi, Shahpar Khan, Parjanya Vyas, Yousra Aafer and N. Asokan "ASE '24: Proceedings of the 39th IEEE/ACM International Conference on Automated Software Engineering."

Bluebird

Auditing Framework APIs via Inferred App-side Security Specifications

Usenix Security Symposium

August, 2023

- Vyas Parjanya, Waheed Asim, Aafer Yousra and Asokan N. "Auditing Framework APIs via Inferred App-side Security Specifications." In 2023 Usenix Security Symposium.

SPLinux

Intl Conf on Security, Privacy & Anonymity in Computation, Communication & Storage

SPLinux: An Information Flow Secure Linux

September, 2021

- Vyas, Parjanya, R. K. Shyamasundar, Bhagyesh Patil, Snehal Borse, and Satyaki Sen. "SPLinux: An Information Flow Secure Linux." In 2021 IEEE Intl Conf on Security, Privacy, and Anonymity in Computation, Communication, and Storage (SpaCCS), pp. 1603-1612. 2021.

SecSDN

International Conference on Security and Cryptography (SECRYPT)

SecSDN: A Novel Architecture For A Secure SDN

July, 2021

- Vyas, Parjanya and Shyamasundar, R. K. "SecSDN: A Novel Architecture for a Secure SDN." In Proceedings of the 18th International Conference on Security and Cryptography - SECRYPT, ISBN 978-989-758-524-1; ISSN 2184-7711, pages 587-594. DOI: 10.5220/0010575505870594

Group Correlations and MPC

Conference on Information-Theoretic Cryptography (ITC)

Group Structure in Correlations and its Applications in Cryptography

July, 2021

- Policharla, Guru-Vamsi, Manoj Prabhakaran, Rajeev Raghunath, and Parjanya Vyas. "Group Structure in Correlations and Its Applications in Cryptography." Cryptology ePrint Archive (2021).

App2SecApp

ACM/SIGAPP Symposium On Applied Computing (SAC)

App2SecApp: Privacy Protection from Android Applications

March, 2021

- Vyas, Parjanya, R. K. Shyamasundar, and Bhagyesh Patil. "App2SecApp: privacy protection from Android applications." In Proceedings of the 36th Annual ACM Symposium on Applied Computing, pp. 908-911. 2021.

SELinux Consistency Analysis

Computers & Security

Consistency analysis and flow secure enforcement of SELinux policies

July, 2020

- Radhika, B. S., NV Narendra Kumar, R. K. Shyamasundar, and Parjanya Vyas. "Consistency Analysis and Flow Secure Enforcement of SELinux Policies." Computers & Security (2020): 101816

- AppAmigo** **Innovations in Software Engineering Conference (ISEC)**
An Android library that provides automatic remote assistance February, 2019
- o Vyas, Parjanya, Bhagyesh Patil, Shubham Singh, and Vinayak Naik. "AppAmigo: An Efficient Middleware to Record and Control Remote Users' Interactions with their Smartphone Apps." In Proceedings of the 12th Innovations on Software Engineering Conference (formerly known as India Software Engineering Conference), pp. 1-11. 2019
- SecSmartLock** **International Conference on Information Systems Security (ICISS)**
An Architecture and Protocol for designing secure smart locks December, 2018
- o Patil, Bhagyesh, Parjanya Vyas, and R. K. Shyamasundar. "SecSmartLock: An Architecture and Protocol for Designing Secure Smart Locks." In International Conference on Information Systems Security, pp. 24-43. Springer, Cham, 2018
- Secure File System** **IEEE TrustCom**
An Experimental Flow Secure File System August, 2018
- o Rudrapatna Shyamasundar, NV Narendra Kumar, Abhijit Taware, and Parjanya Vyas. "An Experimental Flow Secure File System." In 2018 17th IEEE International Conference On Trust, Security And Privacy In Computing And Communications/12th IEEE International Conference On Big Data Science And Engineering (TrustCom/BigDataSE), pp. 790-799. IEEE, 2018
- Improving CPU and GPU parallel computing** **International Journal of Advanced Research(IJARET)**
Performance Evaluation of Parallel Computing Systems Volume 5, Issue 5 - May, 2014
- o Joshi, Dr Narayan, and Parjanya Vyas. "Performance Evaluation of Parallel Computing Systems." International Journal of Advanced Research in Engineering & Technology, ISSN Print (2014): 0976-6480

WORK EXPERIENCE

- University of Waterloo** **Waterloo, ON, Canada**
Teaching Assistant September 2021 - Present
- o Help instructors design and implement assignments for the CS458/658 course on security and privacy.
 - o Assist students in solving the assignments by helping them understand security related concepts.
- University of Waterloo** **Waterloo, ON, Canada**
Summer Intern June 2021 - September 2021
- o Explore static analysis based approaches to evaluate the security of Android Framework under the supervision of Prof Yousra Aafer
- General Motors Canada** **Toronto, ON, Canada**
Software Developer September 2020 - May 2021
- o Maintain and implement features for Audio Framework team in infotainment units of General Motors cars
- Stack Fintech Inc - later acquired by Credit Sesame Inc** **Toronto, ON, Canada**
Android Engineer November 2019 - September 2020
- o Develop and maintain Sesame Cash feature in Credit Sesame Android application
 - o Interviewed and trained new Android developers along with managing a team
- ISRDC Lab under ISEA project of Government of India** **IIT Bombay, Mumbai, India**
Research Assistant July 2016 - June 2019
- o Develop an *Information Flow Secure* file system and extend it into a fully functional information flow secure Linux
- Samsung R&D Institute** **Noida, India**
Software Engineer - started as an Intern January 2015 - July 2016
- o As a part of Accessibility, Settings, Smart Manager and Bike Mode teams, help develop and maintain functionalities of the respective modules in Samsung smartphones

ACHIEVEMENTS

- o Received institute silver medal for securing first merit rank in the graduating batch of M.Tech computer science, IIT Bombay, Mumbai, India - 2019