Sheharyar Khalid

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EDUCATION

Ph.D. in Computer Science
University Of Virginia (UVA) — *2023 – Present*
Advisors: Prof. Wajih Ul Hassan, Prof. Kevin Skadron

Bachelor of Science in Computer Science
Lahore University of Management Sciences (LUMS) — *2019 – 2023*

RESEARCH INTERESTS

Streaming Systems, System Security, Intrusion Detection, SIEM Systems, Hardware based FPGA Acceleration

RESEARCH PROJECTS

Streaming Graph Matching
University of Virginia

- Developing a streaming graph matching system designed to match log data in real-time, enhancing data processing speeds by 500x over existing methods
- Innovating and implementing robust algorithms using C++, ensuring graph matching operates efficiently at line rate without performance bottlenecks
- Engineered a stateless tracking engine utilizing minimal computational resources, which supports dynamic graph updates and scales efficiently for high-volume data streams

Hardware-Accelerated Streaming Log Data Matching
University of Virginia

- Developing an FPGA-based solution for efficient streaming log data matching using automata state-machines
- Analyzing log data with identified system failures to benchmark current system performance
- The work received Best Poster Award at UVA CS Research Symposium 2023

ACADEMIC & WORK EXPERIENCE

University of Virginia — Charlottesville, USA
Graduate Research Assistant - Advised by Prof. Wajih Ul Hassan and Prof. Kevin Skadron — *2023 - Present*

Lahore University of Management Sciences — Lahore, Pakistan
Undergraduate Research Assistant in ISPL Lab - Advised by Prof. Fareed Zafar - 2022-2023
Undergraduate Research Assistant in SIA Lab - Advised by Prof. Mobin Javed - 2022-2023

ACADEMIC & WORK EXPERIENCE

Best Poster Award (UVA Research Symposium) — 2023
University of Virginia

Leadership Representative for CSGSG — 2024-2025
University of Virginia

TECHNICAL SKILLS

Languages	Python, C, C++, SQL, HTML, Haskell, Java, Javascript, MATLAB
Frameworks	Node, React, Numpy, Scikit Learn
Development Stacks	ELK, React, Pytorch
Tools & Misc	Git, Docker

RELEVANT COURSEWORK

Computer Security	Topics in Internet Security and Privacy, Network Security
Computer Networks	Network Centric Computing, Internet Measurements
Machine Learning	Machine Learning, Artificial Intelligence, Data Mining, Data Science