E-mail: asim.jamshed@gmail.com

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CONTACT Information Intel Jones Farm 2 (JF2) Building, 2111 NE 25th Ave, Hillsboro, OR 97124

Interests

Networked systems design & implementation, distributed systems, network security and operating systems.

EDUCATION

Korea Advanced Institute of Science & Technology (KAIST), Republic of Korea

• PhD, Electrical Engineering (Spring 2017). Advisor – Prof. KyoungSoo Park

University of Pittsburgh, Pittsburgh, Pennsylvania, USA

• MS, Computer Science (Apr 2010). Advisors – Prof. KyoungSoo Park & Prof. Daniel Mossé

Lahore University of Management Sciences, Pakistan

• BSc (Hons), Computer Science, (May 2005).

EMPLOYMENT EXPERIENCE (SELECTED) Intel Jones Farm 2 (JF2), Hillsboro, OR

• Research Scientist (May 2017-onwards). Mentor – Christian Maciocco

International Computer Science Institute (ICSI), Berkeley, CA

- Research Intern (May 2014-Aug 2014, Oct 2015-Dec 2015). Mentor Dr. Robin Sommer
- Developed Packet Bricks. See [2] in Projects section.

Palmchip Corporation, Lahore, Pakistan

- Software Engineer (May 2005-July 2006). Mentor Ahrar Naqvi
- Optimized bootloader & filesystem performances for an system-on-chip network-attached storage device series.

PROJECTS/ SOFTWARE (SELECTED)

- 1. mOS STACK (https://github.com/ndsl-kaist/mOS-networking-stack)
- A Specialized Network Programming Library for Stateful Middelboxes.
- Pub: NSDI 2017, URL: http://mos.kaist.edu/
- NSDI Best Paper Award 2017.
- 2. PACKET BRICKS (https://github.com/bro/packet-bricks)
- A netmap-based packet layer for distributing and filtering traffic.
- 3. mTCP (https://github.com/eunyoung14/mtcp/)
- A Highly Scalable User-level TCP Stack for Multicore Systems.
- NSDI Community Award 2014, Runner-up Samsung HumanTech Paper Award 2014.
- Pub: NSDI 2014, URL: http://shader.kaist.edu/mtcp/
- 4. KARGUS
- A Highly-scalable Software-based Network Intrusion Detection System.
- "10 Achievements of 2012 that put KAIST on the Spotlight."
- Pub: CCS 2012, URL: http://shader.kaist.edu/kargus/

Publications (Selected)

- [1] "mOS: A Reusable Networking Stack for Flow Monitoring Middleboxes." NSDI 2017 Best Paper Award
- [2] "APUNet: Revitalizing GPU as Packet Processing Accelerator." NSDI 2017
- [3] "DFC: Accelerating String Pattern Matching for Network Applications." NSDI 2016
- [4] "Haetae: Scaling the Performance of Network Intrusion Detection with Many-core Processors." RAID 2015
- [5] "A Case for a Stateful Middlebox Networking Stack." SIGCOMM CCR 2015
- [6] "mTCP: a Highly Scalable User-level TCP Stack for Multicore Systems." NSDI 2014 Community Award
- [7] "Kargus: a Highly-scalable Software-based Intrusion Detection System." CCS 2012
- [8] "Suppressing Bot Traffic with Accurate Human Attestations." ApSys 2010
- [9] "Sentinel: Hardware-Accelerated Mitigation of Bot-Based DDoS Attacks." ICCCN 2008
- [10] "In-Network Server-Directed Client Authentication and Packet Classification." LCN 2010

AWARDS

NSDI Best Paper Award 2017 for mOS

 2^{nd} Runner-up Samsung Humantech Paper Award 2016 for DFC

NSDI Community Award 2014 for mTCP $\,$

Runner-up Samsung Humantech Paper Award 2014 for mTCP

"10 Achievements of 2012 that put KAIST on the Spotlight" for Kargus

Graduate Fellowship Spring 2006

Undergraduate Dean's Honor List 2001-03

SKILLS

C/C++, Java, C#, Python, CUDA, Lua, Awk, Javascript, Linux shell scripting, HTML, XML, Unix/GNU Linux, x86 Assembly, TILE-Gx programming, LATEX