

Zeeshan HAKIM

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EDUCATION

2012-2016	Lahore University of Management Sciences (LUMS) <i>Bachelors in Computer Science</i> GRADUATE-LEVEL COURSES: Topics In Internet Research, Computer Networks, Human Computer Interaction, Intro to Data Mining, Network Security, Service-Oriented Computing
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RESEARCH PROJECTS

CURRENT	Achieving Fault Tolerance in Data Center Working as a Research Assistant under Dr. Ihsan Ayyub Qazi (PhD, University of Pittsburgh) on a project that deals with the analysis of failures in data centers which disrupt the symmetry in data center topologies causing significantly increased flow/job completion times. Currently, I am working on Linux Kernel to develop a kernel module that would help evaluate various state-of-the-art transport strategies in data centers and eventually propose a framework that would minimize network latencies incurred in such scenarios. This is an ongoing work and we are aiming to submit it at a top conference.
SUMMER 2016	Transport Protocol Performance under Varying Workloads Worked with Dr. Ihsan Ayyub Qazi and Dr. Zartash Afzal Uzmi (PhD, Stanford University) on a project that investigated variations in workload in modern day datacenters. As part of this project, I conducted rigorous evaluations in NS-2 using different standard and synthetic workloads with respect to tail variations. Moreover, I helped create a workload adaptive framework capable of switching between different scheduling schemes while proactively learning the workload variation. This work is currently under review.
FALL 2015	Virtual Machine Introspection Framework Worked with Dr. Basit Shafiq (PhD, Purdue University) on my undergraduate thesis which focused on detection of cyber-attacks using Virtual Machine Introspection. The motivation was to identify attacks in a network of physical machines running several virtual machines. My contributions were analyzing memory dumps using 'Volatility Framework', writing scripts for automation of attacks on VMs as well helping in developing a framework which allowed a central node to identify the infected VM by analyzing logs from different machines.

OTHER PROJECTS

FALL 2016	LUMS vTOUR Worked with Dr. Suleman Shahid (PhD, Tilburg University) to create a 3D model of LUMS using Leica Laser Scanner for HCI course project. This model was used to create a virtual tour of our campus using Oculus Rift.
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WORK EXPERIENCE

CURRENT	Research Assistant Advisor: Dr. Ihsan Ayyub Qazi (PhD, University of Pittsburgh)
SPRING 2016	Teaching Assistant- CS 315: Theory of Automata Worked as a Teaching Assistant for Dr. Hamad Alizai . I prepared and graded quizzes and assignments, conducted weekly tutorials and aided students in course projects.

TECHNICAL SKILLS AND TOOLS

PROFICIENT WITH	C, C++, C#, Java, MATLAB, Python, MySQL, JavaScript
EXPERIENCE WITH	NS-2, SDN(OVS), PHP, Node.js, Perl, Unity 3D (Game Engine), 3DS-MAX

AWARDS AND HONORS

- 2nd Position for Blood For Life Application in [Lahore Civic Hackathon](#) at LUMS, Lahore
- 3rd Position for DNA Matching Engine at [ITEC](#) in NED-UET, Karachi