Waqar Aqeel

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Education

Department of Computer Science, Duke University 08/2017 – Present
Ph.D. Student, Computer Science (expected September 2022)
- Advisor: Prof. Bruce Maggs

Computer Science & Artificial Intelligence Lab (CSAIL), MIT 09/2019 – 09/2020
Visiting Researcher

National University of Sciences and Technology (NUST), Pakistan 09/2010 – 06/2014
Bachelor of Engineering, Software Engineering
- Senior Design Project: Differentiated Services over SDN-IXP

Work Experience

Max Planck Institute for Informatics (MPI), Saarbrücken, Germany 05/2019 – 08/2019
Research Intern
- Worked on privacy in DNS client-side resolution
- Explored structural differences between landing and internal pages of websites and how that affects prior web performance studies

Akamai Technologies, New York City 05/2018 – 08/2018
Performance Engineer Intern
- Derived methods for inversion of the footprint descriptor calculus. This inversion would create representative traffic traces, preventing privacy leaks from large logs

Arbisoft, Lahore, Pakistan 09/2015 – 07-2017
Software Engineer
- Full-stack web development on Python Django & Backbone.js
- Designed modules for XML & JSON processing and generation
- Automated customer engagement and service through Natural Language Processing on text messages

Laboratory of Communications, Networks & Multimedia, NUST 06/2013 – 09/2013
Summer Undergraduate Researcher
- Added analytics features to BISmark network dashboard
- Deployed BISmark public server at NUST

Smart Machines & Robotics Technology Lab, NUST 12/2012 – 05/2013
Undergraduate Researcher
- Engineered machine learning and evaluation components of Tele-Surgical Robotic Simulation (TSRS)
- Organized evaluation experiment for TSRS

Publications

Puncturable Pseudorandom Sets and Private Information Retrieval with Polylogarithmic Bandwidth and Sublinear Time
E. Shi, W. Aqeel, B. Chandrasekaran, and B. Maggs
Pre-print on Cryptology 2020

On Landing and Internal Pages: The Strange Case of Jekyll and Hyde in Internet Measurement
W. Aqeel, B. Chandrasekaran, B. Maggs, and A. Feldmann
ACM Internet Measurement Conference (IMC) 2020
Community Contribution Award

A bird's eye view of the world's fastest networks
D. Bhattacherjee, W. Aqeel, G. Laughlin, B. Maggs, and A. Singla
ACM Internet Measurement Conference (IMC) 2020

Assertion-Carrying Certificates
W. Aqeel, Z. Hanif, J. Larisch, O. Omolola, T. Chung, D. Levin, B. Maggs, A. Mislove, B. Parno, and C. Wilson
Workshop on Foundations of Computer Security (FCS), 2020

Untangling Header Bidding Lore: Some myths, some truths, and some hope
W. Aqeel, D. Bhattacherjee, B. Chandrasekaran, P. Godfrey, G. Laughlin, B. Maggs, A. Singla
Passive and Active Measurement Conference (PAM) 2020
Best Dataset Award

Gearing up for the 21st Century Space Race
D. Bhattacherjee, W. Aqeel, I. Bozkurt, A. Aguirre, B. Chandrasekaran, P. Godfrey, G. Laughlin, B. Maggs, A. Singla
ACM HotNets 2018

Dissecting Latency in the Internet's Fiber Infrastructure
I. Bozkurt, W. Aqeel, D. Bhattacherjee, B. Chandrasekaran, P. Godfrey, G. Laughlin, B. Maggs, A. Singla
Pre-print on arXiv 2018

cISP: A Speed-of-Light Internet Service Provider
D. Bhattacherjee, S. Jyothi, I. Bozkurt, M. Tirmazi, W. Aqeel, A. Aguirre, B. Chandrasekaran, P. Godfrey, G. Laughlin, B. Maggs, A. Singla
Pre-print on arXiv 2018

Benchmarking Expert Surgeons' Path for Evaluating a Trainee Surgeon's Performance
M. A. Ahmad, S. B. Mansoor, Z. A. Khan, W. Aqeel, and S. H. Kabir
ACM SIGGRAPH Virtual-Reality Continuum and Its Applications in Industry (VRCAI) 2013

Teaching Experience

Duke University
- Teaching Assistant, CPS 310 Operating Systems — 08/2018 – 12/2018
- Teaching Assistant, CPS 310 Operating Systems — 01/2018 – 06/2018

Service

ACM EuroSys — 2021
Shadow Program Committee member

USENIX Operating Systems Design and Implementation — 2020
Artifact Evaluation Committee member

Awards & Honors

- Internet Measurement Conference, Community Contribution Award — 2020
- Passive and Active Measurements Conference, Best Dataset Award — 2020
- Duke University Graduate School Fellowship — 2017 – 2019
- SEECS-NUST Alumni Association Scholarship — 2013 – 2014
- Six merit-based grants from NUST — 2010 – 2014
- NUST Entrance Test scholarship for securing rank 20 out of 20,000 students — 2010
- Board of Secondary Education, Karachi, scholarship for securing rank 16 out of 118,000 students — 2008

Skills

Python, C, JavaScript, Prolog/Datalog, Linux, git