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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 - 09/2020Visiting Researcher National University of Sciences and Technology (NUST), Pakistan 09/2010 - 06/2014Bachelor of Engineering, Software Engineering Senior Design Project: Differentiated Services over SDN-IXP Work Facebook, Menlo Park 06/2021 - 08/2021Experience Software Engineer Intern • Designed and implemented eBPF network telemetry for the Magma platform • Enabled centralized control for cloud synchronization rates to reduce bandwidth consumption for partners in Brazil with satellite backhaul Max Planck Institute for Informatics (MPI), Saarbrücken, Germany 05/2019 - 08/2019Research 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 - 08/2018Performance 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 - 07-2017Software 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 - 09/2013Summer Undergraduate Researcher · Added analytics features to BISmark network dashboard Deployed BISmark public server at NUST Smart Machines & Robotics Technology Lab, NUST 12/2012 - 05/2013Undergraduate Researcher Engineered machine learning and evaluation components of Tele-Surgical Robotic Simulation (TSRS)

#### **Publications**

## cISP: A Speed-of-Light Internet Service Provider

Organized evaluation experiment for TSRS

Debopam Bhattacherjee\*, Waqar Aqeel\*, Sangeetha Abdu Jyothi, Ilker Nadi Bozkurt, William Sentosa, Muhammad Tirmazi, Anthony Aguirre, Balakrishnan Chandrasekaran, P. Brighten Godfrey, Gregory P. Laughlin, Bruce M. Maggs, Ankit Singla USENIX Networked Systems Design and Implementation (NSDI) 2022

# Puncturable Pseudorandom Sets and Private Information Retrieval with Polylogarithmic Bandwidth and Sublinear Time

E. Shi, W. Aqeel, B. Chandrasekaran, and B. Maggs IACR Cryptology Conference (Crypto) 2021

## 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 eve 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

# 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

<sup>\*</sup> equal contribution

Teaching	
Experience	

#### **Duke University**

Teaching Assistant, CPS 310 Operating Systems
 Teaching Assistant, CPS 310 Operating Systems
 108/2018 - 12/2018
 101/2018 - 06/2018

#### Service

## **ACM Computer and Communications Security (CCS)**

External reviewer

ACM EuroSys

2021

2020

Shadow Program Committee member

## USENIX Operating Systems Design and Implementation (OSDI)

Artifact Evaluation Committee member

# Awards & Honors

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

#### Skills