Abdul Wasay

PhD Candidate, Harvard School of Engineering and Applied Sciences

| Contact Information | 33 Oxford Street, MD117 awasay@seas.harvard.edu |
|-----------------------------|--|
| mormation | Cambridge, MA 02138 http://daslab.seas.harvard.edu/people/awasay |
| Research Interests | High performance machine learning systems – Data exploration systems – Interactive data systems |
| Education | Harvard University, Cambridge, MA Doctor of Philosophy in Computer Science - Thesis: Queriosity: Accelerating Machine Learning and Data Science (daslab.seas.harvard.edu/queriosity) [WIP] - Advisor: Prof. Stratos Idreos |
| | Harvard University, Cambridge, MA Masters of Science in Computer Science August 2014 – May 2016 |
| | Lahore University of Management Sciences (LUMS), Lahore, Pakistan Bachelors of Science in Computer Science Dean's Honor List with rank: 2 Thesis: Rethinking Buffer Management in Data Center Networks Advisor: Prof. Ihsan A. Qazi and Prof. Zartash A. Uzmi |
| Honours and Awards | Archer-Cornfield Fellowship Most Reproducible Paper Award at SIGMOD Heidelberg Laureate Forum (selection and travel grant) Summer@EPFL Research fellowship UGRAD Exchange Scholarship awarded by the U.S. Dept. of States LUMS National Outreach Program (NOP) full scholarship for undergraduate study |
| Professional Experiences | Harvard University Researcher at Data Systems Laboratory Advisors: Prof. Stratos Idreos Designing techniques to accelerate machine learning and data science pipelines Designing data systems tailored for the purpose of data exploration |
| | Ashesi UniversityBerekuso, GhanaArcher-Cornfield FellowAugust 2019 – Present |
| | Harvard University Instructor at Harvard Summer School Designed and taught Harvard's first summer hybrid course on data systems and machine learning Organized and managed the course with a team of two teaching fellows |

Harvard University

Cambridge, MA

Resident Tutor at Harvard College

August 2015 - May 2019

- Providing academic advising to Harvard undergraduates
- Mentoring and providing support to a group of 30 diverse students every academic year
- Fostering a sense of community at Quincy House, one of Harvard's 12 residential houses

Hewlett Packard Enterprise

Summer research intern at Arcsight

June 2017 - August 2017

Sunnyvale, CA

Advisors: Alkis Simitsis and Martin Arlitt

- Designed and evaluated a strategy to summarize network traffic data (patent applied)

École Polytechnique Fédérale de Lausanne (EPFL)

Lausanne, Switzerland June 2013 - June 2013

Summer research intern

Advisors: Prof. Matthais Grossglauser and Ehsan Kazemi

- Incorporating community structure for social graph de-anonymization

Rapid Deep Ensemble Learning.

Publications

Abdul Wasay, Yuze Liao, and Stratos Idreos.

Preprint 2018.

Learning Data Structure Alchemy.

Stratos Idreos, Kostas Zoumpatianos, Subarna Chatterjee, Wilson Qin, Abdul Wasay, Brian Hentschel,

Mike Kester, Niv Dayan, Demi Guo, Minseo Kang, and Yiyou Sun

IEEE Data Engineering, 2019.

The Periodic Table of Data Structures.

Stratos Idreos, Konstantinos Zoumpatianos, Manos Athanassoulis, Niv Dayan, Brian Hentschel, Michael

S. Kester, Demi Guo, Lukas Maas, Wilson Qin, Abdul Wasay, Yiyou Sun.

IEEE Data Engineering, 2018.

Data Canopy: Accelerating Exploratory Statistical Analysis.

Abdul Wasay, Xinding Wei, Niv Dayan, and Stratos Idreos.

In Proceedings of ACM SIGMOD, New York, USA, 2017.

Queriosity: Automatic Data Exploration.

Abdul Wasay, Manos Athanassoulis, and Stratos Idreos.

In Proceedings of IEEE International Congress on BigData, New York, USA, 2015.

Rethinking Buffer Management In Data Center Networks.

Aisha Mushtaq, Asad K. Ismail, Abdul Wasay, Bilal Mahmood, Ihsan A. Qazi, and Zartash A. Uzmi. In Proceedings of the ACM SIGCOMM, New York, USA, 2014.

Teaching Fellow

Harvard University

- Teaching Fellow, CS165: Data Systems

Fall 2018, Fall 2017, Fall 2015

- Teaching Fellow, CS265: Big Data Systems

Spring 2019, Spring 2018

- Teaching Fellow, AC297r: Capstone Projects

Spring 2016

Lahore University of Management Sciences (LUMS)

- Teaching Assistant, CS211: Discrete Mathematics

Spring 2014, Spring 2012

- Coach in advanced mathematics, National Outreach Program (NOP)

Summer 2012

Advising

Research Advisor (to DASlab Interns and Undergraduates)

Yuze Liao (Tsinghua University)

- Project: Rapid Deep Ensemble Learning

Xingding (Tsinghua University)

- Project: Accelerating Statistical Data Analysis

Zichen Zhu (Tsinghua University) and Yash Bolisetty (Thomas Jefferson High School (TJHST))

- Project: Reinforcement learning to visualize data

Dhruv Gupta (TJHST) - Now at Harvard College

- Project: Interactive data exploration front ends

Nithin Tumma (Harvard College, AB '16) - Now co-founder at Side

- Project: Sketching techniques for data exploration