Maaz Bin Safeer Ahmad

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EDUCATION

2014 – Present **PhD Student – Computer Science & Engineering**
University of Washington, Seattle, USA
Advisor: Alvin Cheung, Ph.D.

2010 – 2014 **B.S. *cum laude* in Computer Science**
National University of Computer & Emerging Sciences, Lahore, Pakistan
Honors: University Silver Medal

SOFTWARE DEVELOPMENT EXPERIENCE

Tableau Software
KIRKLAND, WASHINGTON – JUNE 2015 - SEPTEMBER 2015
Software Engineer Intern.
Worked as part of the Data Management team on improving the performance of incremental extract in the Tableau Data Engine.

NEWT Lab, Information Technology University
LAHORE, PAKISTAN – 2012 - 2014
Research Assistant.
Worked in collaboration with the Punjab IT Board (PITB) to develop and sustain a web based analytics module to track the spread of multiple diseases in the Punjab province. We used spatio-temporal analysis on the live stream of data collected by on-field health workers and government officials to generate timely warnings.

Proton Lab
LAHORE, PAKISTAN – 2011 - 2012
Web Development Intern.

RESEARCH EXPERIENCE

Computer Science & Engineering, University of Washington
SEATTLE, WASHINGTON – 2014 - PRESENT
Graduate Researcher. Supervised by Dr. Alvin Cheung.
The theme of our research is to build tools and applications that can automatically synthesize data stores from application source code. Currently I am working on developing CASPER, source to source compiler that uses verified lifting to automatically retarget native Java applications to Apache Hadoop.

NEWT Lab, Information Technology University
LAHORE, PAKISTAN – 2012 - 2014
Research Assistant. Supervised by Dr. Lakshminarayanan Subramanian (NYU) and Dr. Umar Saif (ITU).
Worked as part of a team to explore how alternate data sources such as online news articles and tweets could be used as reliable early indicators of disease spread.

National University of Computer & Emerging Sciences
LAHORE, PAKISTAN – 2013 - 2014
Undergraduate Thesis. Supervised by Dr. Kashif Zafar.
Worked as part of a small team to conduct an extensive comparative analysis to study the performance of different swarm based meta-heuristic algorithms for wireless sensor network localization under different environmental parameters

PUBLICATIONS

[1] **Maaz Bin Safeer Ahmad**, Alvin Cheung. "**Leveraging Parallel Data Processing Frameworks with Verified Lifting**". To appear in SYNT 2016 (Co-located with CAV 2016). **Best Student Paper Award.**

[2] Talal Ahmad, Nabeel Abdur Rehman, Fahad Pervaiz, Shankar Kalyanaraman, **Maaz Bin Safeer Ahmad**, Sunandan Chakraborty, Lakshminarayan Subramanian, Umar Saif "**Characterizing dengue spread and severity using internet media sources**", ACM DEV (Jan 2013)

TEACHING EXPERIENCE

Teaching Assistant, University of Washington
CSE 401 – UNDERGRADUATE COMPILER CONSTRUCTION – WINTER 2016
Taught by Dr. Ras Bodik and Dr. Alvin Cheung.

SERVICE AND EXTRACURRICULARS

ACM 5th Symposium on Computing for Development, San Jose, 2015
Student Volunteer.

Pakistan-ICTD Workshop, Lahore, 2014
Student Volunteer.

NUCES Annual ACM Speed programming competition 2010, 2011 and 2013
Member of the winning team.

SOFTEC 2013, National University of Computer & Emerging Sciences
Head of the IT team. SOFTEC is one of the largest computer science events in Pakistan organized annually by NUCES.