

603 Causley Ave, Apt 40
Arlington, TX-76010

MAINUL ISLAM

(817) 262-0019
mainul.islam@mavs.uta.edu

EDUCATION

- Doctor of Philosophy (Ph.D.)** candidate in **Computer Science** **Fall 2009 - Present**
University of Texas at Arlington (UTA), Advisor: **Dr. Christoph Csallner** **TX, USA**
GPA: **3.78/4.0** [Expected graduation date: **Spring, 2015**]
- Bachelor of Science (Honors) in Computer Science & Engineering** **Spring 2007**
University of Dhaka, **1st Class** **Dhaka, Bangladesh**



WORK EXPERIENCES

- Software Engineer, Intern** **'May - August' 2014**
 **tripadvisor*** [www.tripadvisor.com] **Boston, MA, USA**

- Worked on several projects as a part of the Community team at TripAdvisor.
- Implemented 'Live-Chat' functionality for the Customer-Support team at TripAdvisor.
- Implemented a GUI-based user-survey to measure the impact of different UIs during registration flow.
- Technologies used: Java, CSS, Javascript, Apache velocity, SQL and other internal technologies.

- Software Engineer, Intern** **'September - December' 2010**
Google [www.google.com] **Mountain View, CA, USA**

- Implemented a client-server based framework to automate the release process for Google binaries.
- Worked on design and development of all the layers (backend, application layer, GUI) of the project.
- Applied load balancing algorithm to distribute workloads among different clients.
- Technologies used: Python, Django, Megastore, Bigtable, and other Google technologies.

- Graduate Teaching and Research Assistant** **Fall 2009 - Present**
 **UNIVERSITY OF TEXAS AT ARLINGTON**  **DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING** [<http://cse.uta.edu>] **TX, USA**

- Working as a teaching assistant for different graduate (Software Engineering: Analysis, Design and Testing) and undergraduate (Software Project Management, Object-Oriented Software Design) courses.
- Currently working on the following research project(s):

Dynamic symbolic execution with mock classes:

- ◇ Implemented a technique to achieve higher code coverage by generating mock-classes.
- ◇ Mock-classes are used to derive useful program inputs when complex type constraints are imposed, especially for code that uses multiple interfaces, reflections, or annotations.

Combining native code analysis with dynamic symbolic execution: [*work on progress*]

- ◇ Our goal is to reduce false positives for native code.
- ◇ Our approach is to merge the constraints found for native code with the constraints collected for non-native (Java) code and solve them together as a single constraint system.

- Software Development Engineer** **August 2007 - June 2009**
 **adpeople** [www.adpeople.com] **Bangladesh & Denmark**

- Designed and developed core automation systems to produce marcom materials for Dell.
- Played a significant role in domain & workflow design and developing complex GUI components by analyzing business requirements and communicating with relevant clients.
- Other responsibilities were solving critical problems, bug fixing, documentation, etc.
- Technologies used: C# 2.0, ASP.NET 2.0, JavaScript, SQL Server, and others.

TECHNICAL SKILLS

- **Programming Languages:** Java, C#, C
- **Database:** Microsoft SQL Server, MySQL
- **Web:** HTML, CSS, JavaScript
- **Mobile platform:** Android

PUBLICATIONS

- **Mainul Islam**, Christoph Csallner, “**Generating test cases for programs that are coded against interfaces and annotations**”, in ACM Transactions on Software Engineering and Methodology (TOSEM), 2014, vol. 23, no. 3, May 2014, pp. 21:1-21:38.
- **Mainul Islam**, Christoph Csallner, “**Dsc+Mock: A test case + mock class generator in support of coding against interfaces**”, in Proc. 8th International Workshop on Dynamic Analysis (WODA), July 2010, pp. 26-31.

AWARDS AND HONORS

- **2nd Place**, in ACM ICPC¹ Multi-Provincial Programming Contest. **India, 2008**
 - **1st Place**, in EastWest University Computer Programming Contest. **Bangladesh, 2007**
 - **Qualified** for and **participated** in the 30th ACM ICPC World Finals. **USA, 2006**
 - **1st Runner-Up**, in the ACM ICPC Regional Contest, Dhaka site. **Bangladesh, 2005**
- My team qualified for the ICPC World Finals (first time ever for my university) for this result.**

¹International Collegiate Programming Contest