

MIR MASOOD ALI

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EDUCATION

PhD in Computer Science

January 2020 - Present

University of Illinois at Chicago

Advisor: Chris Kanich and Jason Polakis

Master of Computer Science

January 2018 - August 2019

Dalhousie University, Halifax, Canada

Thesis: Coercion Resistant Verifiable Web-based Elections in Linear Time

Supervisor: Srinivas Sampalli

Bachelor of Computer Science and Engineering

July 2013 - June 2017

Visvesvaraya Technological University, India

PROJECTS

Composable Infrastructure-as-a-Service (COMPaaS) NSF Grant

May 2020 - Present

The Electronic Visualization Lab (EVL) at UIC offers bare metal and cluster services for data science and visualization projects. Researchers in the Computer Science department can benefit from high-performance GPUs and large storage options. I migrated bare-metal systems to Canonical's Metal-as-a-Service (MaaS) for easy PXE-booting and configuration, and also set up a JupyterHub-based service for users to access containers directly from the project's website at compaas.evl.uic.edu.

Department of National Defence, Canada IDEaS

August 2019 - December 2019

The project falls under the umbrella - "Understanding Cyber Intent". As a part of the project, we are building a Context-Aware and Machine Learning Framework that will be used to Predict, Detect and Differentiate Cyber-Attacks. The Framework will then be validated on a testbed with simulated attacks.

Cartoon Conrad NSBI Voucher Grant

July 2019 - August 2019

We built and presented a prototype of a persuasive game to manage juvenile diabetes. We conducted a survey of commercial CGM API's and presented game variable translations into a Habitica-style interface.

Spritely Technologies Inc. NSBI Voucher Grant

December 2018 - February 2019

We developed and integrated of SSO using social logins for the website and native Android/iOS applications. We also presented a report on the choices and methods for implementing of third-party payment options (Stripe).

ACAMEDIC WRITING

Mir Masood Ali, *Coercion-Resistant Verifiable Web-based Elections in Linear Time*, Master's Thesis, 2019 [PDF]

Mir Masood Ali, *Combating Credential Stuffing: Protocols to Check for Compromised Credentials and Password Reuse*, PhD Qualifier, 2021 [PDF]

Mir Masood Ali, Joel Miller, Chris Kanich, *Δ Time: What Can We Learn from an Online Community That Has Sustained Good-faith Discussions for over 7 years?*, Preprint under-review, 2021 [PDF]

TEACHING

Teaching Assistant - Program Design II **University of Illinois at Chicago, IL, USA**

January 2020 - April 2020

Terms: Spring 2020

Instructor: Derek Reilly

Language: C++

A TA for this course manages and runs labs, holds office hours for assignments, gives presentations on data structures to groups of 20-30 students at a time

Head Teaching Assistant - Software Engineering **Dalhousie University, Halifax, Canada**

January 2018 - August 2019

Terms: Winter 2018, Summer 2018, Winter 2019, Summer 2019

Instructor: Juliano Franz

Tools: Android Studio, Firestore (W'19 and S'19: Firebase), CI (Circle and Gitlab), Version Control (GitHub and GitLab), Testing (JUnit, Espresso, Robolectric)

Methodology: Agile, XP, TDD

A Head TA for this course is required to manage and run labs. This includes giving presentations and guiding students through the course project and assignments. TA's are responsible for managing and organizing the tasks of between 3 and 5 groups of 8 members each, besides serving as clients, planning iterations, and developing acceptance tests.

Head Teaching Assistant - Network Security **Dalhousie University, Halifax, Canada**

January 2019 - April 2019

Terms: Winter 2019

Instructor: Dr. Srinivas Sampalli

Tools: Wireshark, dig, nslookup, Nessus, Maltego

Programming Languages: Java, Python, C, C++

A Head TA for this course is required to manage and run labs. This includes giving presentations and guiding students through the course project and assignments. Managing the learning management system (Brightspace), marking assignments, creating and distributing rubrics and sample solutions are included. A TA for this course also assists with proctoring examinations.

Teaching Assistant - Data Structures and Algorithms **Dalhousie University, Halifax, Canada**

September 2018 - December 2018

Terms: Fall 2018

Instructor: Dr. Srinivas Sampalli

Tools: Eclipse (for Java and Maven)

A TA for this course is required to manage and run labs. This includes giving presentations and guiding students through course assignments. There is additionally an evaluation of project presentations and invigilation besides marking.

TECHNICAL STRENGTHS

HPC	Metal-as-a-service, Kubernetes, Docker
Programming Languages	Python, Java, C/C++

TECHNICAL STRENGTHS

Mentoring	2 high-school students with their AP-research through ISTI
Reviewer	IEEE Access (Publons)
Twitter Manager	MD4SG
Member	Computer Society of India (2013-2017)