

Mohammad Abdul Hadi

CONTACT

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OBJECTIVE

I want to pursue a career where I can broaden my expertise and experience by employing my skills. I aim to use Artificial Intelligence, Machine Learning that incorporate Augmented and Virtual Reality, Robotics, and Data Visualization to solve crucial problems through the creative applications of different analytical tools and carefully devised algorithms.

EDUCATION

Master's in Computer Science (Studying)

Sep 2019 — Aug 2021

The University of British Columbia, BC, Canada

(The field of my research encompasses a broad domain of Artificial Intelligence, Machine Learning, and Software Engineering. I aim to build AI-driven intelligent software products, components to deal with crucial problems for both individual and community.)

BS in Computer Science and Engineering

May 2014 — May 2018

North South University, Dhaka, Bangladesh

CGPA: 3.99 / 4.00 (1st position in Engineering Dept.)

Summa Cum Laude, Vice Chancellor's Gold Medalist

Secondary School Certificate (SSC)

Feb 2005 — May 2010

Chittagong Collegiate School, Chittagong, Bangladesh

GPA : 5.00 / 5.00

SCHOLARSHIPS / AWARDS

- Dean's Entrance Scholarship (UBC-2019)
- Vice Chancellor's Gold Medal (NSU-2019)
- Faculty Research Grant (EU-2018)
- Senior Project Design Grant (NSU-2018)
- Awarded with 100% Scholarship (NSU-2014)
- Secondary School Scholarship (CCS-2010)
- Junior Scholarship (SBK-2004)

TECHNICAL KNOWLEDGE

- **Languages:**C, C++, C#, Java, SQL, Python, Assembly, Verilog, R
- **Web and Scripts:**ASP, PHP, JavaScript, D3.js, Node.js XML, JSON, AJAX, HTML, CSS
- **Frameworks:**ASP.NET, Laravel, Bootstrap, OOPHP
- **Tools:**MATLAB, Logisim, Microwind, Pspice, emux8086

KEY ATTRIBUTES

- Determined to make a difference to individual and communities
- Fastidious, urbane, articulate with excellent communication skills
- Self-Motivational, quick learner, patient, approachable and non-judgmental
- Willing to step outside the comfort zone
- Always on my way to take challenges and unlock my potential

WORK EXPERIENCE

The University of British Columbia, BC,
Canada

Sep 2019 — Present

Research Assistant

- Machine Learning
- Software Engineering
- Natural Language Processing
- Data Visualization

Niedner Inc.

Jan 2020 — June 2020

Software Developer Intern

Project: Modeling and optimisation of woven composite hydraulic tubes, to reduce in-service defects and failures—Phase II

Supervisors: Dr. Abbas S. Milani; Dr. Fatemeh H. Fard, UBC Okanagan

The University of British Columbia, BC,
Canada

Sep 2019 — Present

Teaching Assistant

- COSC 328: Computer Networking
- COSC 304: Database Management System
- COSC 341: Human Computer Interaction

Eastern University, Department of CSE,
Dhaka, Bangladesh

July 2018 — August 2019

Lecturer

- Mathematical Analysis for CS
- Digital Logic Design
- Structural Programming (C, JAVA)
- Computer Architecture
- Web Programming
- Design and Analysis of Algorithm
- Software Engineering

USA Embassy, Archer K. Blood Library and
EMK Center, Dhaka, Bangladesh

Mar 2018 — Aug 2018

Workshop Designer & Instructor

- Conducting several workshops with an aim to develop certain technological skills within under-privileged Bangladeshi community.
- Technological Soft-Skill development programs for teenagers and preteens.

North South University, Department of
Electrical and Computer Engineering,
Dhaka, Bangladesh

Apr 2018 — Aug 2019

Lab Instructor

- Computer Organization and Architecture
- Programming Language II - Java
- Database Systems
- Digital Logic Design
- Microprocessor, Microcontroller and Peripheral Devices

North South University, ACM Students'
Chapter, Dhaka, Bangladesh

Jan 2017 — Apr 2017

Instructor

- Basic and Object-Oriented Programming
- Problem Solving using C, C++, Java, Python
- Design, Implementation, and Analysis of Algorithms

North South University, Department of
English and Modern Languages, Dhaka,
Bangladesh

Aug 2016 — Jul 2017

Teaching Assistant

- Introduction to Composition
- Introduction to Advanced Intermediate Compositions
- Introduction to Fiction

North South University, Department of
Electrical and Computer Engineering,
Dhaka, Bangladesh

May 2018 — Jul 2018

Teaching Assistant

- Introduction to VLSI design.
- Introduction to frameworks for web-development

AntTech, Dhaka, Bangladesh

Feb 2016 — Jan 2018

Part-time Web Developer and Instructor

- Web development
- Social Media Portal Development
- Enterprise Mobile app development

PROJECT EXPERIENCE

- Empirical Study for Text Classification and Topic Modeling for Energy Consumption Related Reviews in Google Play-store (2020)
- ReviewViz: Assisting Developers Perform Empirical Study on Energy Consumption Related Reviews for Mobile Applications (2020)
- Geo-Spatial Data Visualization and Critical Metrics Predictions for Canadian Elections (2020)
- Study of individual's reflection on particular Hadiths (direct quotes from Prophet Muhammad (PBUH)) after they've been exposed to our visualization tool which illustrates the propagation of these somewhat controversial (authentic or spurious) hadiths among their narrators (/transmitters) along with some recorded significant events (e.g. wars, personal/clan dispute etc.) that might/could have provoked aberrant dissemination of these quotes making them most referenced throughout the history. (2019)
- A web application that proposes varying consultation fees for doctors in their private practices depending on several parameters (e.g. severity and ubiquity of the diagnosed disease, the effort put into detecting the disease, patients perceptions on doctor's behavior etc.). Used fuzzy logic classification and Linear Discriminant Analysis as the parameters can be perceived differently throughout the entire user population. (2019)
- Developed a pet-robot for blind people with autonomous navigation implementing Simultaneous Localization and Mapping (SLAM) algorithm. We have used 3D-Depth Camera: For mapping, an XBOX-360 Kinect is being used; LIDAR: For localization, a Neato XV-11 LIDAR is being used. The whole system is based on Linux Operating System. (2018)
- Developed a portal for immigrant donor outreach to help students in need. Currently in pursuit to upgrade it to support other humanitarian services. (<https://www.serve-bd.org/>) (2018)
- Developed a warehouse management system and a portal for "Teachers' Association" for a Chittagong City Corporation. (Beta version for the latter is available at ccctactg.org) (2017)
- Developed a course advising system for North South University implementing a Bidding Approach coupled with Gale-Shapley Student Deferred Acceptance algorithm in Web Technology course. (2017)
- Developing an improved version of "Takeaki Uno's Quasi Clique Density Prediction algorithm" (Work is still due; working on to prove improvement with algorithmic expression) (2017)
- Developed a custom Script for PCB Optimization. (2017)
- Made an Aeroplane turbulence detection device capable of measuring simultaneous Passengers' heartbeat using "Inertial Measurement Unit" in Operating System course with a goal to predict stressful condition beforehand. (2016)
- Developed a POS system in the Software Engineering course. (2016)
- Built a low-cost Braille device with Arduino micro-controller in Digital and Microprocessor Interfacing course. (2016)
- Developed a 4-Bit ALU with 16 operations in Digital and Microprocessor Design Lab course and implemented it within the micro-programmed basic computer. (2016)

PUBLICATIONS

1. M. A. Hadi, F. H. Fard. 2020. ReviewViz: Assisting Developers Perform Empirical Study on Energy Consumption Related Reviews for Mobile Applications. in proceeding ACM MOBILESoft 2020.
2. M. A. Hadi, F. H. Fard. 2020. Geo-Spatial Data Visualization and Critical Metrics Predictions for Canadian Elections. IEEE CCECE 2020.

REFERENCES

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