FARDINA FATHMIUL ALAM

EDUCATION

PhD in Computer Science   August 2016 - Present
George Mason University, Fairfax, Virginia

MS in Computer Science   August 2016 - Present
George Mason University, Fairfax, Virginia

MS in Computer Science and Engineering   2013 - 2016
Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh

Bachelor of Science in Computer Science and Engineering   2009 - 2012
Military Institute of Science and Technology (MIST), Dhaka, Bangladesh

TECHNICAL SKILLS

Languages	Java, C, C++, C#, ASP.NET, JavaScript, HTML 5, CSS 3, Python, JavaScript, Visual Basic, Assembly Language, Ajax, jQuery, Node.js, Angular.js, JSF
JEE Platform	Servlets and JSPs, Integration of Servlets and JSPs: (MVC) Architecture
MVC based frameworks	Apache Struts2, Tiles2, JDBC, Java Persistence API (JPA 2.0), JSON/XML/XML Schema, SOAP, time permitting RESTful Web services, MVC-based JavaServer Faces (JSF 2.2) Web Development Framework, Java Persistence API (JPA2.0)/Hibernate
Cloud Computing Platform	Amazon AWS, DevOps Practices,
IDEs	NetBeans, DrJava, Eclipse, Microsoft Visual Studio, Visual Studio,
Databases	Oracle, JSONIQ, MSSQL Server, MySQL, SQLite, MS Access, Firebase, DynamoDB
Topic Modeling Toolkit	Weka, Gensim
Other Applications	Microsoft Office, Matlab, Latex

TECHNICAL PROJECTS

Climate Decision Analysis Projects applied to a case study of the Grand Ethiopian Renaissance Dam (GERD) using UNITY decision guidance system.

Data Mining Project: Theme-based Categorization of News Articles using Semantic Insights of Data using Python, Gensim (Word2vec, Doc2Vec), nltk (Natural Language Toolkit) etc.

Introducing a program-n-search tool Searcher with help from the crowd in SeeCode.run debugging community tool.

System analysis, design and development of Auction System using Java and Oracle.

System analysis, design and development of Convention Center Management System using C# and MSSQL.

System analysis, design and development of Online Course Management System using PHP and MySQL.

Development and Modeling of Car Parking Slot Management System using C#, AtMega16 microcontroller and, IR sensor.

Tetris Game using J2ME, Chat Messenger using Java and, NetBeans Platform.

Design and implementation of 4 bit microprocessor based on MIPS Architecture with two stage pipelining and 28 basic instructions.

3D Design of a Cottage House with Animation using OpenGL and C++, 2D Implementation using OpenGL and C++.

A window based mini compiler implementation using Lex and
Yuck. Tic Tac Toe Game using C++ and Minimax algorithm.

JOB EXPERIENCE

Graduate Teaching Assistant
Department of Computer Science,
Volgenau School of Engineering, George Mason University, Fairfax, Virginia.
August 2016 – Present

Lab Instructor of Object Oriented Programming Language Java Lab: Providing interactive lectures by preparing material on Basic of Object Oriented Programming Language Java at Java Lab.
Other courses: Data Structure, Software Testing (Undergraduate Level), Software Testing (Graduate Level), Software User Interface Design (Graduate Level).

Responsibilities: Grading for exams, course works and various projects. Assisting Professor at course related tasks. Counseling students on their academic matters related to different assignments, projects.

Graduate Research Assistant
Department of Computer Science,
Volgenau School of Engineering, George Mason University, Fairfax, Virginia.
May 2018 – August 2018

Worked with Professor Alex Brodsky on the topic of Recommendation System using Unity Decision Guidance Management System.

Currently working with Professor Amarda Shehu in the topic of Deep Learning.

Lecturer
Department of Computer Science and Engineering,
International University of Business, Agriculture and Technology (IUBAT) Dhaka, Bangladesh
January 2013 - 2016

Providing interactive lecture by designing course and, preparing course material on Basic of Computer Fundamental & Application, Compiler Design, Computer Graphics, Visual Programming, Database, Object Oriented Programming and, Programming structure.

Creating questionnaires for exams, assessing students for course work and various projects.
Performing day to day administrative tasks that assigned to me from CS department head.

Supervising and counseling students on their academic matters, projects and thesis. Training students on Java, C, C++ and C # for National and International programming contest

Founder Member and Software Engineer
InfyTech IT Limited,
Dhaka Bangladesh

RESEARCH INTEREST

Artificial Intelligence, Machine Learning, Deep Learning, Computational Biology, Human Computer Interaction

PUBLICATIONS

Paper Name: "Word Embedding for Semantic Resemblance of Substantial Text Data: A Comparative Study"
Conference Name: International Conference on Smart IOT Systems: Innovations in Computing (SSIC 2019)
Paper Status: Accepted and in processing to Springer.

Paper Name: "Introducing Spatial Orientation Sensitive Cellphone Messaging System for Blind People"
Conference Name: ICCIE International Conference on Computer and Information Engineering 2015
Paper Status: Accepted and published in IEEE Explorer.
Link: http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=7399328

Paper Name: "Session-Based Improved Test Case Generation Using Genetic Algorithm"
Conference Name: International Conference on Electrical Information & Communication Technology
(EICT 2013)
Paper Status: Accepted

PROFESSIONAL CERTIFICATION

Enterprise Application Development using Java &
Oracle, Infosys Limited Mysore, India.

PROFESSIONAL ACTIVITIES

Programming Team Coach
ACM International Collegiate Programming Contest (ACM-ICPC) Asian Regional Site Dhaka, Bangladesh

Programming Coach
IUBAT-Inter University Programming Contest, Dhaka, Bangladesh

Programming Judge
IUBAT-Inter University Programming Contest, Dhaka, Bangladesh.

REFERENCE

Kamal Ahmed
Sr. Applications Developer, NRECA
Other references are available upon request.