

Md. Saqib Hasan

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EDUCATION

NOVEMBER 2018-PRESENT	M.Sc. in Computer Science and Engineering Bangladesh University of Engineering and Technology (BUET) , Dhaka CGPA:3.75 Supervisor: Dr. Muhammad Abdullah Adnan
JULY 2014-OCTOBER 2018	B.Sc. in Computer Science and Engineering Bangladesh University of Engineering and Technology (BUET) , Dhaka CGPA: 3.8 Graduated with Honors Thesis: "Parameterization of Neural Network Inspired by the Biological Brain" Supervisor: Dr. Muhammad Abdullah Adnan
MAY-JUNE 2013	A Levels Cambridge International Examinations, CIE 4 subjects in total Grade: 4 A* (90%+)
MAY-JUNE 2011	O Levels Cambridge International Examinations, CIE 8 subjects in total Grade: 6 A* (90%+), 2 A (80%+)

WORK EXPERIENCE

OCTOBER 2018-PRESENT	Research Assistant Bangladesh University of Engineering and Technology (BUET) Lab: Applied Machine Learning Lab, BUET Research Supervisor: Dr. Muhammad Abdullah Adnan
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RESEARCH INTERESTS

- Machine Learning and applications
- Deep Learning
- Data Analytics in the Cloud
- Cloud applications
- Natural Language Processing
- Blockchain

RESEARCH EXPERIENCE

- **Undergraduate Thesis** on "Parameterization of Neural Networks Inspired by the Biological Brain"

Supervisor: Dr. Muhammad Abdullah Adnan, Assistant Professor, Dept. of CSE, BUET

- During research assistant-ship, worked on the development of algorithms for Big Data analytics on geo-distributed in the cloud using feature extraction and single communication.
- During research assistant-ship, worked on the development of unique dimensionality reduction based compression algorithms exclusively for neural network models.
- During research assistant-ship, worked on developing a neural architecture for improved classification of fake news on the internet.
- For a brief time during research assistant-ship, worked with others in the lab for development of a blockchain-based enterprise resource planning software using Hyperledger framework.
- During Masters coursework, worked on the project “**Implementing DCM (Disk Covering Method) Using Distributed Cloud-Computing Framework**” during **Bioinformatics** course. Project involved developing a tcp based framework using Python and current bioinformatics frameworks to implement dcm method for faster creation of phylogenetic trees from large datasets on a cluster of computer.

PUBLICATIONS AND POSTERS

- “Neuro-scientific Analysis of Weights in Neural Networks”
Journal: Neural Processing Letters, Springer
Status: Under review
- “Geo-distributed Deep Learning Using Feature Extraction on Big Data”
Conference: IEEE Big Data, 2019
Status: Under review
- “Compressing Deep Learning Models Using Dimensionality Reduction for Small Devices and the Web”
Conference: ACM WSDM, 2020
Status: Under review
- “Truth or Lie: Using Attention in Deep Learning For Detection of Fake News”
Conference: AAAI 2020
Status: Under review
- **Poster** presented on “PCAAalytics: Analyzing Real Time Data Using Principle Component Analysis” at the 5th International Conference on Networking, Systems and Security (5th NSysS 2018)
- **Poster** presented on “Neural.NET : A Neuro-science Based Web Application For Doctors and Researchers” at the 5th International Conference on Networking, Systems and Security (5th NSysS 2018)

ACADEMIC HONORS

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| 2018 | Dean’s List Award, BUET |
| 2017 | Dean’s List Award, BUET |
| 2016 | Dean’s List Award, BUET |
| 2011 | Cambridge Award for World Highest in subject Additional Mathematics |
| 2011 | Cambridge Award for Country Highest in subject Principles of Accounting |

EXTRA-CURRICULAR ACTIVITIES & ACHIEVEMENTS

- 2018 Participated in “Bengali Handwritten Digit Recognition”
Kaggle machine learning contest organized by Bengali.AI
- 2017 Champion at Hackathon for Environmental Migrants in Bangladesh,
organized by Dr. Ingrid Boas, Assistant Professor at the Environmental Policy Group,
Wageningen University
- 2017 Top 20 at Pioneros,Business Case Development Competition
organized by BUET Entrepreneurship and Development Club, BUETEDC
- 2016 Top 20 at HULT Prize in BUET
- 2016 Participated in IEEEEMadC 2016, a mobile application contest developed
organized by IEEE

TECHNICAL SKILLS

PROGRAMMING LANGUAGES:	C/C++, Java, Python, Assembly x86, MATLAB, SQL, Latex, HTML, CSS, Javascript, PHP
FRAMEWORKS:	Keras, Pytorch, Numpy, Pandas, Scikit-learn, Bootstrap, Ionic, JQuery, Django, Tensorflow, Lex, Yacc
EMBEDDED SYSTEM:	Arduino, ATmega
DEVELOPMENT ENVIRONMENT:	Windows, Mac OS, Ubuntu, Arduino IDE, CodeBlocks, IntelliJ IDEA, Pycharm, Jupyter, Amazon Web Service (EC2)
BASIC TOOLS:	Word, Excel, Powerpoint

PROJECTS

4 IN A ROW	The classic 4 in a row game implemented in C using the ighraphics library.
BANGLATUBE	A clone version of youtube app, for desktops, developed using Java and socket programming.
EDUENGINEER	mobile application developed using Java and Android Studio as part of international contest IEEEEMadC 2016. It is a platform to share information about research and programming, which was aimed at junior year electrical and computer science students.
HALL MANAGEMENT SYSTEM	A web application for BUET halls/hostels using Java and Oracle SQL.
CRIME WATCH	A mobile application where users can report about and learn about crimes in their area, developed in Ionic Framework.
ONUBADOK	An English to Bangla automatic translation application developed using machine learning and deep learning. It is based on the Seq2Seq, encoder-decoder neural network model for machine translation and was developed using Python, Tensorflow and Keras.