Palash Roy

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Education

Department of Computer Science and Engineering, University of Dhaka   *Dhaka, Bangladesh*
MASTER OF SCIENCE (MSc), CGPA: 3.96/4.00 (UPTO 2ND SEMESTER)   *2020 - Present*

Department of Computer Science and Engineering, University of Dhaka   *Dhaka, Bangladesh*
BACHELOR OF SCIENCE (BSc), CGPA: 3.85/4.00   *2016 - 2019*

Rajuk Uttara Model College   *Uttara, Dhaka, Bangladesh*
HIGHER SECONDARY CERTIFICATE, GPA: 5.00/5.00   *2015*

Rangamati Goverment High School   *Rangamati, Bangladesh*
SECONDARY SCHOOL CERTIFICATE, GPA: 5.00/5.00   *2013*

Experience

Green University of Bangladesh   *Dhaka, Bangladesh*
LECTURER   *October 2020 - PRESENT*

- Course Taken (Fall 2020)
    - Web Programming Lab, Algorithms Lab, Software Development and Testing Lab, Pattern Recognition Lab, Computer Networking
- Course Taken (Spring 2021)
    - Computer Networking, Computer Networking Lab, Information System and Design Lab, Engineering Drawing
- Course Taken (Summer 2021)
    - Computer Networking, Computer Networking Lab, Database Systems Lab, Wireless Networks
- Course Taken (Fall 2021)
    - Computer and Network Security, Computer Networking Lab, Information System and Design Lab

Publication

Journal Paper

- **User mobility and Quality-of-Experience aware placement of Virtual Network Functions in 5G, Palash Roy**, Anika Tahsin, Sujan Sarker, Tamal Adhikary, Md. Abdur Razzaque, Mohammad Mehedi Hassan, *Computer Communications, vol. 150, pp. 367 – 377,* doi: https://doi.org/10.1016/j.comcom.2019.12.005.
- **AI-enabled Mobile Multimedia Service Instance Placement Scheme in Mobile Edge Computing, Palash Roy**, Sujan Sarker, Md. Abdur Razzaque, Mohammad Mehedi Hassan, Salman AlQahtani, Gianluca Aloi, Giancarlo Fortino, *Computer Networks, vol. 182,* doi: https://doi.org/10.1016/j.comnet.2020.107573.
- **Distributed Task Allocation in Mobile Device Cloud Exploiting Federated Learning and Subjective Logic, Palash Roy**, Sujan Sarker, Md. Abdur Razzaque, Md. Mamun-or-Rashid, Mohammad Mehedi Hassan, Giancarlo Fortino, *Journal of System Architecture (2020) (IF: 2.55)* https://doi.org/10.1016/j.sysarc.2020.101972
- **Multi-criteria handover mobility management in 5G cellular network,** Md. Rajibul Palas, Md. Rakibul Islam, **Palash Roy**, Md. Abdur Razzaque, Ahmad Alsanad, Salman AlQahtani, Mohammad Mehedi Hassan, *Computer Communications, vol. 174, pp. 81 – 91,* doi: https://doi.org/10.1016/j.comcom.2021.04.020.

Conference Paper

- Amena Zahan Prithibi, Syeda Kanij Faria, **Palash Roy**, Md. Abdur Razzaque, **Network Lifetime Aware Routing Algorithm for Energy Harvesting Wireless Sensor Networks,** *2020 2nd International Conference on Sustainable Technologies for Industry 4.0 (STI), 19-20 Dec 2020, Dhaka, Bangladesh.*
- Mozdaher Abdul Quader, Montaser Abdul Quader, **Palash Roy**, Md. Abdur Razzaque, **A Hybrid Approach for Routing Path Computation in Software Defined Ultra Dense Network,** *2020 2nd International Conference on Sustainable Technologies for Industry 4.0 (STI), 19-20 Dec 2020, Dhaka, Bangladesh.*
- Sabikun Nahar Tanha, Sowpna Akter Mim, **Palash Roy**, Md. Abdur Razzaque, **Prediction of Energy Harvesting in Solar Powered Small Cell Networks**, *2021 3rd International Conference on Sustainable Technologies for Industry 4.0 (STI), 18-19 Dec, 2021, Dhaka, Bangladesh.*
- Rushmita H. Chaity, **Palash Roy**, Md. Abdur Razzaque, M. Sadiquzzaman, **Enhancing Quality of Experience of 5G Users Exploiting Deep Q-Learning**, *2021 3rd International Conference on Sustainable Technologies for Industry 4.0 (STI), 18-19 Dec, 2021, Dhaka, Bangladesh. [Best Paper Award]*
- M. Shahjalal, N. Farhana, **Palash Roy**, Md. Abdur Razzaque, **QoE Aware Optimal Deployment of Virtual Network Functions in 5G Hybrid Cloud**, *2021 3rd International Conference on Sustainable Technologies for Industry 4.0 (STI), 18-19 Dec, 2021, Dhaka, Bangladesh.*
- S.M. Tanvir Rahman, A. K. Sinthia, S. Nabila Akter, **Palash Roy**, Md. Abdur Razzaque, **Reputation Aware Fair Worker Selection in Collaborative Software Crowdsourcing**, *2021 3rd International Conference on Sustainable Technologies for Industry 4.0 (STI), 18-19 Dec, 2021, Dhaka, Bangladesh.*

Projects

EasyML (Github Link) | (Demo Video) *HTML, JavaScript, Python-Flask, Firebase*

SOFTWARE ENGINEERING LAB PROJECT *2018*

EasyML is a web-based **machine learning tutorial** project. By this platform, users can pre-process their data and find tutorial of different ML algorithms like PCA Analysis, Dimension Reduction 2D and 3D, Logistic Regression Classifier, K Neighbors Classifier, Decision Tree Classifier, SVM Classifier and Random Forest Classifier. Furthermore, users also simulate these algorithms using arbitrary datasets.

Helping Hand *HTML, JavaScript, Firebase*

INTERNET PROGRAMMING LAB PROJECT *2019*

Helping Hand is a web based fund collection project by which users can able to prevent fraud donation collection using QR code.

Cardio (Github Link) *HTML, JavaScript, Firebase*

SOFTWARE DESIGN PATTERN LAB PROJECT *2018*

Cardio is a web application that lets the doctors, patients, sellers and dealers make an account and organize their prescription or medicine stock. Doctors can give suggestions to the patients and write prescription. Patient can download this prescription and offer medicines by this prescription to the sellers.

ExploreBD (Github Link) | (Demo Video) *Java, Firebase*

APPLICATION DEVELOPMENT LAB PROJECT *2017*

Explore BD is an android mobile app by which users face less problems in the new tourist spot. Users share their experience of a tourist place like hotel information of that place, total expenditure of that tour and users can create an event when they want to make a tour.

29 Card (Github Link) *Java*

OBJECT ORIENTED PROGRAMMING LAB PROJECT *2017*

This game is developed by JAVA socket programming. In this game we have used JAVA socket programming by which four players can attend in this game at the same time.

Pacman Reborn (Demo Video) *C++*

STRUCTURED PROGRAMMING LAB PROJECT *2016*

A desktop game developed by C++ and using SFML library. The goal of this game is to eat all foods and avoid getting eaten by ghosts. We have added some special features to make the game easier for player

MOOC Courses

Deep Learning Specialization by deeplearning.ai in Coursera [Certificate]

Topics Covered: Neural network, Hyperparamter Tuning, Regularization, Structuring Machine Learning Projects, Convolutional Neural Networks (CNN), Object Detection Algorithm, Recurrent Neural Network (RNN), Word2Vec, LSTM

Machine Learning by Prof Andrew Ng in Coursera [Certificate]

Topics Covered: Linear Regression, Logistic Regression, Bias and Variance, Neural Network, SVM, K-means clustering, PCA, Anomaly detection, Recommender Systems

Skills

Programming Languages	Python, Java, C/C++
Machine Learning Libraries	NumPy, Matplotlib, keras, pandas, scikit-learn
Web Programming	HTML, JavaScript, PHP
Database	MySQL, Firebase database
Software Tools	LATEX, Android Studio, Netbeans, Microsoft Visio, Pycharm, Codeblocks, AutoCAD

Achievement

December, 2019

Best Poster Paper Award, Have been awarded the best poster paper award in **1st International Conference on Sustainable Technology for Industry(STI) 4.0, Dhaka, Bangladesh** for our research work **Mobility Aware Optimal Placement of Virtual Network Functions in 5G.**

July, 2020

Fellowship Scholarship, Have been provided fellowship by **ICT Division, People's Republic of Bangladesh** for conducting extensive research work which can keep significant contributions in the ICT sectors of Bangladesh.

Extracurricular Activities

IEEE Student Branch, Green University of Bangladesh (IEEE SB GUB)

Mentor   *November, 2021 - Present*

I am mentoring the students of IEEE SB GUB and IEEE CS SBC GUB for organizing the events in GUB by providing some guidelines.

IEEE Computer Society Student Branch Chapter, DU

Chair   *October, 2020 - Present*

I have voluntarily organized several events in DU by this organization. I also organized several events in collaboration with IEEE Computer Society, Bangladesh Chapter.

IEEE Computer Society Student Branch Chapter DU

General Secretary and Treasurer   *March, 2019-October, 2020*

I have voluntarily organized several events in DU by this organization to learn most updated things of our recent technologies those are not taught in our academic curriculum. I also maintained financial budget of those events.

Shabab Murshid Development Foundation (SMDF)

Teacher   *July 2017-December 2019*

I voluntarily teach Mathematics and English to underprivileged school children of classes 6-10 at **Shabab Murshid Development Foundation (SMDF)**.

Reference

Name	Dr. Md Abdur Razzaque
Designation	Professor
Institution	Department of Computer Science and Engineering, University of Dhaka
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