

# Md Toukir Ahmed

## PERSONAL DATA

---

PHONE: +12179912103  
EMAIL: [mtahmed3@illinois.edu](mailto:mtahmed3@illinois.edu)  
PROFILE: [Google scholar](#), [LinkedIn](#)

## EDUCATION

---

- 2021- Present    **Doctor of Philosophy (PhD)**  
*Department of Agricultural and Biological Engineering,*  
**University of Illinois Urbana-Champaign (UIUC),**  
Urbana-61801, United States  
**CGPA:4.00/4.00**
- 2012- 2017    **Bachelor of Science (B.Sc.) in Computer Science and Engineering**  
*Department of Computer Science and Engineering (CSE),*  
**Bangladesh University of Engineering and Technology (BUET),**  
Dhaka-1000, Bangladesh  
**CGPA:3.67/4.00**

## PROFESSIONAL EXPERIENCE

---

### Graduate research assistant

- Working as a graduate research assistant at Department of Agricultural and Biological Engineering in **University of Illinois Urbana-Champaign (UIUC)** since August-21, 2021.
- Analyzed hyperspectral images to extract spectra of agricultural and biological materials
- Developed ML based classification, regression, and feature selection models for spectral analysis on agricultural and biological materials

### Assistant Professor

- Worked as an Assistant Professor of Department of Computer Science and Engineering in **Pabna University of Science and Technology (PUST)** from August-3, 2020 to August-10, 2021.
- Conducted courses on Object oriented programming, Artificial intelligence, Machine learning, and Database
- Worked as an adviser of IEEE PUST student branch

## RESEARCH INTERESTS

---

Machine Learning, Artificial Intelligence, Computer Vision, Bioinformatics, Spectroscopy, Hyperspectral Image Processing

## PUBLICATION

---

Md Toukir Ahmed, Mohammed Kamruzzaman "Prediction of firmness of sweet potato using VNIR hyperspectral imaging and machine learning."ASABE-2023 [Article Link](#)

Kamruzzaman, Mohammed, Dipsikha Kalita, Md Toukir Ahmed, Gamal ElMasry, and Yoshio Makino. "Effect of variable selection algorithms on model performance for predicting moisture content in biological materials using spectral data." *Analytica Chimica Acta* (2021): 339390.(ELSEVIER, Q1) [Article Link](#).

Tarafder, Sumit, Md Toukir Ahmed, Sumaiya Iqbal, Md Tamjidul Hoque, and M. Sohel Rahman. **RBSURFpred: modeling protein accessible surface area in real and binary space using regularized and optimized regression**. Journal of theoretical biology 441 (2018): 44-57.(ELSEVIER, Q1) [Article Link](#).

## COURSES TAKEN

- Basic CS Courses: Data Structures, Algorithms, Networking, Software Engineering, Database Design
- Data Analysis: Artificial Intelligence, Machine Learning, Introduction to Data Science, Mathematics for machine learning, Computational Bioengineering, Data Mining

## COMPLETED PROJECTS

|                                   |   |
|-----------------------------------|---|
| HEARTS:                           | This is a typical card game where a person plays with 3 opponents (computer).The game is challenging as the opponents always try to win.It was designed in OpenGL (iGraphics) and written in C. |
| MCQ SERVER:                       | A Server-client socket programming based project with GUI using Java.   |
| ESHOPPER:                         | EShopper is a database driven website both in pc and android platform where shopping can be done on internet.It was developed in Python Django.   |
| APPOINTMENT SCHEDULER:            | A oracle based system designed in C# to schedule appointment of the client effectively and hierarchically.  |
| NETWORKING PROJECT:               | Improvement in End-to-End delay Computation Of AODV Protocol Using NS2  |
| AI PROJECTS:                      | Different Machine learning and Pattern Recognition based projects on Id3, KNN, Naive Bayes, ANN, Clustering were completed using java and python.   |
| GRAPHICS PROJECT:                 | 3D modeling, shading and reflections of objects were done in Graphics project.  |
| PROJECTS ON ML AND DEEP LEARNING: | Certified on some online courses based on Machine Learning and Deep Learning. The projects and certification can be found in <a href="#">this github link</a> .                                 |

## COMPUTER SKILLS

|                            |   |
|----------------------------|---|
| LANGUAGE:                  | C, C++, C#, Python, Java, Assembly, R, MATLAB, PL/SQL     |
| ANALYSIS TOOL AND LIBRARY: | Weka, Pandas, Tensorflow, Numpy, Scikit learn, NLTK, ENVI |
| DATABASE:                  | Oracle, MySQL   |
| OPERATING SYSTEM:          | Windows, Linux, Mac                                       |
| SCRIPTING:                 | TEX, HTML, Shell Script(Linux)                            |
| VERSION CONTROL:           | GitHub, Box   |

## SCHOLARSHIPS

- Dean's List Award for academic excellence in level-4 (GPA: 3.82, session:2014-15).

- National Education Board Scholarship (General Grade) in Secondary School Certification Examination.
- National Education Board Scholarship (General Grade) in Junior Scholarship Examination.