

# AFRIDA RAHMAN

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**GitHub:** <https://github.com/AfridaRSam>

**DockerHub:** <https://hub.docker.com/u/afridarahman>

## Summary

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Being an undergraduate student with a background in computer science, has a great interest in artificial intelligence and has worked as a research candidate for the Machine Learning Research Group. Experimentalized on different types of protein Post-Translational Modification (PTM) using several feature selection and extraction methods along with Sequence Analysis and Machine Learning Algorithms. Completed some web development projects using HTML, CSS, JavaScript, PHP, SQL, Python, Django. Recently started Machine Learning and Deep Learning with Deployment course provided by iNeuron, an Indian organization that builds innovative and affordable AI solutions.

## Education

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	Institute	Result	Year
Computer Science and Engineering (Bsc.)	Rajshahi University of Engineering and Technology	CGPA-3.33 (present)	2015 – 2019
Higher Secondary School Certificate	Rajshahi College	GPA-5.00	2013-2015
Secondary School Certificate	Govt. P.N Girls' High School	GPA-5.00	2013

## Work Experience

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### iNeuron – Learner (June 2020 – Present)

- Acquiring the basic knowledge of OOP concepts along with python core, exception handling, database programming, data analysis and visualization, rest API, SQL, statistics, exploratory data analysis, machine learning algorithms with end to end development.

## **Machine Learning Research Group**—Research Candidate (August 2019 – Present)

- Analyzing and exploring the relevant fields of Computational proteomics.

## **IEEE** – Student Member (December 2019 – Present)

- Communicating with the professional world and building networks for future goals.

## **Innovation Society of RUET (ISR)** – General Member (August 2018 – Present)

- Collecting innovative ideas and maintaining relationship with creative people.

## **Bangladesh Betar** – Lead singer (2009 – 2014)

- Maintaining a leading role in different cultural activities.

## **Projects**

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### 1. **Historical place based website:** (March 2017 – December 2017)

- A simple website by which people can gather knowledge & history of that particular places after registration. It also provides the users a comment section.

Tools: HTML, CSS, Core PHP, MySQL

### 2. **Agriculture Disease Management System:** (March 2018 – August 2018)

- A website provides the users to choose any photo of plant's disease and if the data of that disease is stored in database, system will show that particular disease management ways with the symptoms, pre and post actions of disease.

Tools: HTML, CSS, Core PHP, MySQL

### 3. **Hospital management system:** (March 2019 – June 2019)

- It is an integrated information system for managing different aspects of a hospital's operations such as medical, financial, administrative. It will include all records of general stuff, doctor, patient, operations in database. It will also provide opportunities to get quick response & appointment section.

Tools: HTML, CSS, Core PHP, Laravel, MySQL, Mailtrap.io

### 4. **Web Scraping API:** (September 2020)

- **Review Scraper:** It is an application where customer reviews of a website (i.e. Flipcart) are scrapped using Flask and the gained customer reviews are stored automatically in MongoDB and lastly, the deployment has been completed using Heroku server.

- **Image Scraper:** It is another Flask application by which images can be scrapped from different website based on user requirement.

Tools: Flask, HTML, CSS, Python, MongoDB.

## 5. **Dockerized Crud API:** (October 2020)

- A simple Flask crud api by which data can be inserted, deleted, updated based on sending json response and stored data in MongoDB (same procedure is applied on PostgreSQL database) and then containerized the whole application for deployment procedure.

Tools: Docker, Flask, MongoDB, Postman, PostgreSQL

## **Publications**

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### **International Conferences:**

Prediction of Formylation Sites by Incorporating Sequence Coupling into General PseAAC. 2020

Authors: Afrida Rahman, Sabit Ahmed, Julia Rahman and Md. Al Mehedi Hasan.

Conference Name: IEEE Region 10 Symposium (TENSYP), 2020.

Status: Accepted.

Tools: Python, Matlab, Scikit-learn.

### **International Journals:**

Predicting Multiple Lysine PTM Sites with Optimal Feature Representation and Data Imbalance Minimization. 2020

Authors: Sabit Ahmed, Afrida Rahman, Md. Al Mehedi Hasan, Julia Rahman, Md Khaled Ben Islam and Shamim Ahmed.

Journal Name: IEEE/ACM Transactions on Computational Biology and Bioinformatics.

Status: Submitted.

Tools: Python, Matlab, Scikit-learn, Django, HTML, and CSS.

Predicting phosphoglycerylation sites with the incorporation of sequence-coupling information into Chou's general PseAAC (Submitted) 2020

Authors: Sabit Ahmed, Afrida Rahman, Md. Al Mehedi Hasan, Md Khaled Ben Islam, Julia Rahman and Shamim Ahmed.

Journal Name: PLOS ONE

Status: Submitted.

Tools: Python, Scikit-learn, Django, HTML, and CSS.

## Certifications

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IEEE Region 10 Symposium 2020 -

- Certificate of appreciation for a successful presentation on “Prediction of Formylation Sites by Incorporating Sequence Coupling into General PseAAC”

Coursera -

- Programming for Everybody (Getting Started with Python)
- Python Data Structures
- Using Databases with Python
- Using Python to Access Web Data

## Skills

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### **Data science and machine learning based:**

- Data analysis, Protein sequence analysis, Feature analysis, Basic statistics.
- Linear regression, Classification techniques, Parameter tuning, Model development.

### **Visualization based:**

- Dataframe, Matplotlib, Numpy, Seaborn, Plotly.

### **Programming language based:**

- Python, C++, C, HTML, CSS, Matlab.

### **Database based:**

- SQLite, NoSQL(MongoDB), PostgreSQL, MySQL.

### **Framework based:**

- Django, Flask, Vue.js.

### **Deployment based:**

- Docker, Docker-compose, Kubernetes.

### **Others:**

- Microsoft Word, Excel, Powerpoint, git.