



Swad Mustasin Khan

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EDUCATION AND TRAINING

01/01/2019 – 30/04/2023 Dhaka, Bangladesh

BACHELOR OF SCIENCE IN COMPUTER SCIENCE AND ENGINEERING BRAC University

Field(s) of Study: Programming Languages (Java, Python), Data Structures & Algorithms, Object-Oriented Programming, Discrete Mathematics, Calculus, Linear Algebra, Elements of Statistics & Probability, Software Engineering, Artificial Intelligence, Data Science: Coding with Real World Data, Cryptography & Cryptoanalysis.

Website <https://www.bracu.ac.bd/> | **Final grade** 3.54 | **Level in EQF** EQF level 6 | **Number of credits** 136 |

Thesis SAAD: An Approach to Detect Smartphone Addiction through Activity Recognition and App Usage Behaviour

RESEARCH EXPERIENCE

03/2022 – 04/2023

SAAD: An Approach to Detect Smartphone Addiction through Activity Recognition and App Usage Behaviour

- Conducted my thesis work through collecting smartphone usage and sensor data over 7 days for 30 participants, used to detect smartphone addiction.
- Implemented different clustering methods like K-Means and K-Medoids were utilized in this study, along with LSTM models used for activity recognition through correlating app usage with daily behaviours.
- Finally, making validation through the SAS-SV score, which achieved 87% accuracy using the RI and FMI (evaluation matrix) of our findings, 28% of participants had addictive behaviour.

Link <http://hdl.handle.net/10361/21930>

WORK EXPERIENCE

10/2022 – CURRENT Dhaka, Bangladesh

TEACHING EXPERIENCE UNDERGRADUATE STUDENT TUTOR

• **Assistance with Courses :**

- Data Structures - CSE220
- Algorithms - CSE221
- Programming Language -CSE111

Website : <https://www.bracu.ac.bd/academics/departments/computer-science-and-engineering/bachelor-science-computer-science-and/cse-0>

- Mathematics 1: Differential Calculus & Coordinate - MAT110

website: <https://www.bracu.ac.bd/academics/departments/mathematics-and-natural-sciences>

• **Responsibilities:**

- Assisting with the enhanced understanding of the theoretical concepts of course topics
- Consulting and engaging with students for a better grasp on solving midterm, final, quizzes, and assignment-related problems.
- Helping with the analysis of the errors and mistakes of previous exams.

15/07/2023 – 16/10/2023 Dhaka, Bangladesh

SOFTWARE ENGINEER INTERN BRAC BANK

Project Assistance:

- As a Software Engineer Intern, I had the privilege to contribute and be involved in diverse projects and learn through this process.
- Contributing and assisting in the writing process as well as the refinement of technical documentation for the ongoing project.

- Developing software prototype models small features of the projects while interacting closely with senior engineers.
- Making the layout of the intended outputs of new initiatives as the project manager envisioned as well as drafting system configuration specifications to match the desired goals of the project.

Research & Development:

- Implimenting new features inside the project, including experimenting with creative and novel techniques like web applications' multilayer tab opening.
- Experimenting with different creative approaches to enhance code efficiency and optimizing the performance.
- Testing new interfaces for users along with rigorous examination of server-side rendering.

Skills & Achievement:

- Gained practical knowledge I received hands-on experience in ML, Java, JavaScript, CSS, and DOM manipulation. I improved and boosted my web development abilities and machine learning knowledge by around 40%.
- Accomplished in-depth ideas on specific areas through close collaboration.
- Developed the characteristic of taking a relaxed approach to collaborative effort, exchanging ideas, while effectively interacting within the group.

Business or Sector Financial and insurance activities | **Department** Technology | **Email** enquiry@bracbank.com |

Website <https://www.bracbank.com/en>

Link <https://drive.google.com/file/d/1hyt7uTJJGbeLVsbzH7D36NsQDm6Gx2lK/view?usp=sharing>

LANGUAGE SKILLS

Mother tongue(s): **BENGALI**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	C1	B2	C1	B2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

GitHub | LaTeX | Microsoft Excel | Microsoft Office

Programming Language & Software Developing

Java | Python | HTML, JavaScript, MYSQL | Experience In Mern Stack(mongodb, Expressjs, Reactjs, Nodejs)

Data Science

Machine Learning | Deep Learning

Data Analysis & Visualization

Data Analysis With Python | Experience in Matplotlib, NumPy, Pandas, scikit-learn

PROJECTS

House Rent Monitoring

Using Python as a tool, applied machine learning techniques such as Linear Regression, Decision Trees, and Random Forest, alongside data visualization libraries like Matplotlib and Seaborn to train models and evaluate performance.

Link <https://github.com/SwadKhan/HouseRentPrediction.git>

Covid Monitoring & Helping Site

Using MySQL for the database, implemented PHP, HTML, CSS, and JavaScript for the frontend to provide users with vaccine, hospital recommendations, COVID-related news, and donor availability, while allowing admins full control over system updates.

Link <https://github.com/SwadKhan/CovidUA.git>

Simple Banking Site

The public banking website facilitates account formation, fund transfers, withdrawals, and balance inquiries through the use of SQL for database administration, Tomcat as the web server, and Java for backend functionality. JavaScript and Tailwind CSS are used for the front-end design and functionality.

Link https://github.com/SwadKhan/Bank_project.git

HONOURS AND AWARDS

VC's List – BRAC University

- Vice Chancellor's award in 4 semesters for outstanding result.

BRAC Scholarship – BRAC University

- Got 50% scholarship from spring 2020 to spring 2023 (10 consecutive semesters)

MIST Inter-University ICT Innovation Fest 2021 – Military Institute of Science and Technology (MIST)

- 2nd Runner-Up (Two-phase competition.)

Link <https://drive.google.com/file/d/1SFg2d-rYoTlwHwPxOp8dUCZ1ssapd97v/view?usp=sharing>

National Scholarship

- Obtained in 8th & 5th grade for outstanding marks in Junior School Certificate Exam & Primary School Certificate Exam respectively.

LICENSE AND CERTIFICATIONS

Featured Professional Trainings & Courses

- **Unsupervised Learning in Python** (Platform: DataCamp , Nov 2022.)
- **Feature Engineering for Machine Learning in Python** (Platform: DataCamp , Oct 2022.)
- **Cleaning Data in Python** (Platform: DataCamp , Oct 2022.)
- **Machine Learning with Tree-Based Models in Python** (Platform: DataCamp , Oct 2022.)
- **Introduction to Data Science in Python** (Platform: DataCamp , Oct 2022.)

Link https://drive.google.com/drive/folders/14ea_ujfcIWl2PCvRSWyHG5obU9lsm5EL?usp=drive_link

EXTRA CURRICULAR ACTIVITIES

2022 – 2023

Event Coordinator, BRAC University Chess Club

- Fostered good connections while collaborating with other members across different events.
- Led the organization of various events while engaging with other executive members to ensure effective teamwork.

Volunteering ,Corona Awareness Campaign, 2022

- Contributed significantly to the campaign "Spreading Awareness Against Corona," organized by Shaheed Syed Nazrul Islam Medical College, Kishoreganj, Bangladesh, October 2022.
- Played key role in the event's management to organize the event successfully.

Art & Sport

- I love creating sketch arts and portraits and participated in different competitions. Besides, passionate about playing both outdoor sports (football and cricket) as well as indoor games like table tennis.

RECOMMENDATIONS

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BRAC University, Dhaka 1212, Bangladesh

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