

# ASHRAFUL KABIR

Dhaka Cantonment, Dhaka, Bangladesh | P: +880 1708394084 | ashrafulkabar2021@gmail.com  
LinkedIn: linkedin.com/in/ashraful-kabar-alif | GitHub: github.com/AshrafulKabir7

## SUMMARY

Computer Science graduate specializing in data structures, algorithms, and machine learning. Experienced in teaching foundational topics in programming and problem-solving. Passionate about leveraging computational techniques to solve real-world problems, particularly in machine learning, computer vision, and web development. Seeking to contribute technical expertise in a dynamic and challenging work environment, including remote roles.

## EDUCATION

### BRAC University

Bachelor of Engineering

Major in Computer Science and Engineering

Cumulative GPA: 3.92/4.0;

VC's List: Spring 2021, Fall 2021, Fall 2022, Spring 2023

Dean's List: Summer 2021, Summer 2023

### BAF Shaheen School and College

Higher Secondary Certificate (HSC) in Science

### BAF Shaheen School and College

Secondary School Certificate (SSC) in Science

Merul Badda, Dhaka-1212

November 2024 [Summer 2024]

Chattogram, Bangladesh

Jan 2019

Chattogram, Bangladesh

Jan 2017

## RESEARCH WORK

### Undergraduate Thesis

#### Synergistic Application of Advanced Machine Learning and Computer Vision Techniques for the Detection of Exoplanet and Star: Leveraging Contrastive Learning in Astronomical Imagery

October 2023 – October 2024

- Conducting research on exoplanet detection using contrastive learning and few-shot learning techniques, with a focus on high-resolution images from the James Webb Space Telescope (JWST).
- Applying self-supervised learning and deep learning approaches to improve the accuracy and efficiency of the detection system in astronomical imagery.
- Overcoming challenges in space image processing, including noise reduction and feature extraction from complex datasets.

### Others paper

#### 1. Using Natural Language Processing to Analyze Disaster Tweets with BERT and Transformer

Applied BERT and Transformer models to perform sentiment analysis and crisis detection on disaster-related tweets, contributing to social media analytics for crisis management.

#### 2. Image Generation with DCGAN: A Deep Convolutional Generative Adversarial Network

Explored the capabilities of Deep Convolutional Generative Adversarial Networks (DCGANs) in generating high-quality synthetic images, analyzing the model's architecture and performance.

#### 3. Implementing a Vanilla RNN and Analyzing its Limitations

Investigated the architecture and limitations of Vanilla Recurrent Neural Networks (RNNs) in sequential data processing, examining their strengths and weaknesses in handling long-range dependencies.

## PROJECTS

### Skincare AI collaborated with brainstation23 (Django, Machine Learning)

- Developed a web application using Django to analyze skin conditions and recommend personalized skincare products.
- Implemented machine learning algorithms to process user-uploaded images and identify skin types or issues with 90% accuracy.
- Designed a user-friendly interface with secure data handling for user inputs and product suggestions.

### Comic Book Website (Django, SQLite)

- Built a full-stack web application using Django and SQLite to manage comic book collections.
- Implemented machine learning algorithms to process user-uploaded images and identify skin types or issues with 85% accuracy.

### E-commerce Platform (PHP, MySQL)

- Created an e-commerce website using PHP and MySQL, featuring product listings, shopping cart, and order processing.
- Ensured efficient database management for seamless user transactions and inventory tracking.

### Library Management System (PHP, MySQL)

- Designed a library management system to automate book borrowing, returns, and database operations.
- Utilized PHP and MySQL to develop a scalable solution for library administration.

### Railway Management System (Arduino)

- Engineered an Arduino-based system to automate train station operations, including scheduling and resource management.
- Integrated hardware and software to ensure real-time functionality and operational efficiency.

## WORK EXPERIENCE

---

### Student Tutor

BRAC University – Introduction to Python, Object-Oriented Programming, Data Structures  
Dhaka, Bangladesh | January 2023 – October 2024

- Assisted over 100 students per semester in mastering Python programming, object-oriented programming (OOP), and data structures through lab sessions and one-on-one support.
- Designed coding exercises and graded assignments/quizzes, ensuring alignment with course objectives.
- Enhanced student comprehension by providing clear explanations and practical examples.

### Python Tutor

Code Mentor

Dhaka, Bangladesh | June 2023 – September 2023

- Taught Python programming to 40+ students, covering basic syntax, advanced concepts, debugging, and real-world applications.
- Delivered personalized guidance, improving students' coding skills and confidence.

### Data Entry Specialist

Essential Health Care, Remote, USA | June 2023 – October 2024

- Managed health-related data entry tasks with a focus on accuracy and completeness, supporting company record-keeping.
- Utilized data entry software and databases to input and manage sensitive health information.

### Assistant Manager – IT and Operations (SEZL)

Dhaka, Bangladesh | Jan 2025 – Current

- Managed the company's website, ensuring its functionality and updating content as needed.
- Supervised and maintained the central storage hub, ensuring data integrity and security.
- Led client meetings to understand their needs and provided solutions accordingly.
- Promoted the company's activities and updates on LinkedIn and Facebook to enhance its online presence.

## SKILLS

---

- **Programming Languages:** Python, Java, PHP, SQL
- **Web Development:** Django, PHP, HTML, CSS, JavaScript
- **Database Management:** MySQL, SQLite
- **Machine Learning/Deep Learning:** TensorFlow, PyTorch, Scikit-learn, Keras
- **Computer Vision:** OpenCV, Image Augmentation, Object Detection
- **Embedded Systems:** Arduino
- **Data Analysis:** NumPy, Pandas, Matplotlib, Seaborn
- **Software Tools:** Git, Jupyter Notebook, VSCode
- **Other:** LaTeX (academic writing)