

# SHAMIM RAHIM REFAT

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**Portfolio:** [sapphirefang1998.github.io](https://sapphirefang1998.github.io)



## SUMMARY

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Aspiring enthusiast in Machine Learning and Artificial Intelligence, focusing in computer vision. Enthusiastic about contributing to dynamic teams and continuously advancing my skills and knowledge through hands-on experience and learning.

## RESEARCH INTERESTS

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- Computer Vision
- Machine Learning
- Deep Learning

## RESEARCH PUBLICATIONS

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- "Advanced CNN and Explainable AI Based Architecture for Interpretable Brain MRI Analysis" - **ICCA 2024**
- "An Approach Towards Identifying Bangladeshi Leaf Diseases through Transfer Learning and XAI" - **ICCIT 2024**
- "An Exploratory Approach Towards Investigating and Explaining Vision Transformer and Transfer Learning for Brain Disease Detection" - **ICCIT 2024**
- "Comprehensive Lung Disease Detection Using Deep Learning Models and Hybrid Chest X-ray Data with Explainable AI" - **ICCIT 2024**. (Honored "**2024 ICCIT Best Technical Presentation of the Session - 12AVM**")
- "ANCHOLIK-NER: A Benchmark Dataset for Bangla Regional Named Entity Recognition" - **arXiv** [↗](#)
- "VR-FuseNet: A Fusion of Heterogeneous Fundus Data and Explainable Deep Network for Diabetic Retinopathy Classification" - **arXiv** [↗](#)

## PROJECTS

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- **Bangla Sentiment Analysis Detection** [↗](#)  
An offensive language detection model for bangla social media comments using Bangla BERT, and deployed it via FastAPI. Docker has been used in this project to ensure consistent, portable, and efficient deployment of the Bangla BERT sentiment analysis API.
- **JobBoy BD (Web Application Development)** [↗](#)  
Developed an ASP.NET MVC-based "Online Job Portal" enabling job postings, resume reviews, and communication between job seekers and recruiters using C#, HTML, CSS, JavaScript, PHP, SQL Server 2014 and Microsoft Visual Studio 2013.
- **AquaSense (Hardware Development)** [↗](#)  
Developed an "Automated Water Pump and Quality Monitoring System" for efficient water management using Arduino UNO and Arduino IDE.
- **Dental Care (Web Development)** [↗](#)  
Created a "Dental Appointment System" for managing appointments using PHP, CSS, JavaScript and Visual Studio Code.

- **Hyacinth (Software Development)** 

Developed a "Pharmacy Management System" using Java Swing to streamline operations and manage inventory, utilizing Java, MySQL, XAMPP and NetBeans.

## TECHNICAL SKILLS

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- **Programming Languages**

C++, Java, Python, Dart

- **Deep Learning Tools**

Tensorflow, Keras, PyTorch, scikit-learn

- **Developer Tools**

Visual Studio Code, Codeblocks, NetBeans, Anaconda, Google Colab, Git Bash, Overleaf (Online LaTeX Editor)

- **Databases**

Microsoft SQL Server, MySQL

## EDUCATION

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**Ahsanullah University of Science and Technology**

2020 - 2025

B.Sc. in Computer Science and Engineering

CGPA: 3.096

**Notre Dame College**

2017 - 2019

Higher Secondary School Certificate

**Ideal School and College**

2007 - 2017

Secondary School Certificate

## ADDITIONAL INFORMATION

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- Participated in
  - Intra AUST Programming Contest, Spring 2020
  - CodeClash21: Intra AUST Programming Contest, Fall 2021
  - CEFALO Codefiesta, 2022
  - AUST CSE Carnival 1.0, 2022
  - CodeCombat 1.0, 2023
  - AUST CSE Carnival 2.0, 2023
- Organized CEFALO Codefiesta, 2022