

HAFIZ AL FAHIM

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ResearchGate ◇ Github ◇ LinkedIn ◇ Website

EDUCATION

Daffodil International University

Bachelor of Science in Computer Science and Engineering
GPA: 3.68/4.0

September 2024

RESEARCH EXPERIENCE

Seeds Classification Using Deep Neural Network: A Review [1]

Supervisors: Dr. Ahmed Wasif Reza and Mohammad Shamsul Arefin

January 2023

Springer Nature

- Proposed: The paper reviews how deep learning can help classify seeds more accurately.
- Found: Traditional methods are slow and not always reliable.
- Completed: Study on different deep learning models used for seed classification.
- Modified: How network structures were adjusted for better results.
- Methods: Combining image processing with deep learning was suggested for improvement.
- Conclusion: The study showed that deep learning can make seed classification faster and more accurate.

A Review on the Impacts of Social Media on the Mental Health[2]

Supervisors: Dr. Touhid Bhuiyan and Mohammad Shamsul Arefin

January 2023

Springer Nature

- Proposed: This study reviews the effects of social media on mental health, especially among youth.
- Found: We found that excessive use of social media can lead to anxiety, depression, and poor self-esteem.
- Completed: We examined multiple studies highlighting both the positive and negative impacts.
- Modified: This study suggests changes in social media habits and awareness to reduce negative outcomes.
- Conclusion: The study concluded that while social media has benefits, its overuse poses serious mental health risks.

DuoSeedNet: An Optimized Dual-Branch Convolutional Neural Network for Enhanced Fruit Seed Classificationpaper3

Supervisors: Dr. Md Zahid Hasan

February 2024-Present

Under Review

- Proposed: A new model called DuoSeedNet was created to classify seeds using deep learning.
- Findings: It beats traditional models like ResNet and VGG, hitting up to 98.63% accuracy.
- Completed: We examined multiple studies highlighting both the positive and negative impacts.
- Conclusion: DuoSeedNet could boost precision farming by making seed classification smarter and faster.

PUBLICATIONS

- [1] **Hafiz Al Fahim**, M. A. Hasan, M. H. I. Bijoy, A. W. Reza, and M. S. Arefin, "Seeds classification using deep neural network: A review," in *Springer nature*, 2023.
- [2] M. A. B. S. Topu, R. S. Akash, **Hafiz Al Fahim**, et al., "A review on the impacts of social media on the mental health," *Springer Nature*, 2023.

PROJECTS

Fruit Seeds Classification and Detection using YOLOv8. Fruit Seeds Classification and Detection using YOLO and Roboflow is a system that utilizes computer vision techniques

Project Link: [Click Here](#)

Python, Deep Learning, Classification

Description: It used to identify and classify different types of seeds. By using YOLO (You Only Look Once) for real-time object detection and Roboflow for model training and data annotation, the system can accurately detect and classify seeds based on their characteristics

Custom CNN Architecture

Project Link: [Click Here](#)

Deep Learning, Computer Vision, Classification

Description: Build a fine-tuned CNN architecture from the vanilla convolutional neural network.

SVM Kernel Comparison

Project Link: [Click Here](#)

Python, SVM, Linear. Polynomial

Implemented SVM models on the Australian Credit Approval dataset using Linear and Polynomial kernels; applied StandardScaler and PCA, evaluated performance (accuracy, precision, recall, confusion matrix), and visualized results. Found the linear kernel achieved better accuracy and generalization, while the polynomial kernel was slower and prone to overfitting.

Bangladesh Agricultural Yield Prediction

Project Link: [Click Here](#)

Python, Scikit-learn, Dash (Plotly), Linear Regression

This project develops an interactive machine learning dashboard to predict crop yield and production in Bangladesh using historical data. Leveraging features such as Year, Rainfall, and Temperature, it applies linear regression models to forecast agricultural output. Users can visualize actual versus predicted values through dynamic charts powered by Plotly and Dash—and input their own data for real-time prediction.

Customer-Purchases-Insights-Data-Analysis-Visualization-with-Python Project Link: [Click Here](#)

Python, Numpy, Pandas, Data Science

This project uses Pandas and NumPy to analyze customer purchases, revealing top products, spending trends, and buying patterns through efficient data processing.

JOB EXPERIENCE

Executive - SHIKHO

Employment Certificate: [Click Here](#)

November 2024 - Present

Ensured the seamless execution of online classes by setting up virtual sessions, troubleshooting technical issues, and resolving disruptions. Maintained stable internet connectivity to prevent interruptions and provided technical support to instructors and students. Regularly updated the CMS with new class information to ensure accurate and organized course management

Technical Researcher & Data Analyst - Business Globalizer

July 2024 - October 2024

I optimized business operations through data-driven solutions and budget analysis of U.S. products, ensuring accurate financial planning. I also collaborated on process improvements, provided precise budget recommendations, and assisted overseas clients with their queries and requirements.

Lab Prefectship - Daffodil International University

July 2021 - August 2023

As a lab teaching assistant for two semesters, I guided students through complex SQL queries and operating system processes, assisted with exam preparations, reviewed reports, and provided feedback to enhance their understanding while ensuring academic standards.

SKILLS

Programming Languages	Python, Python Libraries (Numpy, Pandas, Matplotlib)
Research Skills	Machine Learning, Deep Learning, Statistical analysis, Data Analysis
Database	SQL, MySQL
Technical Writing	Documentation, Report generation, Presentations

ENGLISH LANGUAGE TEST

Ielts Score	Overall Band Score 6.5
Speaking	6.5
Listening	7.00
Reading	6.5
Writing	6.00
CEFR Level	B2
Verify Certificate	Click Here

ACHIEVEMENTS & ECA

- [1]Scholarship - I was honored with the Brilliant Academic Result scholarship from Daffodil International University across multiple semesters, which provided a 30% tuition fee waiver.
 - [2]Scholarship - I was honored with the prestigious IELTS Scholarship, awarded by IDP & The Daily Star, in recognition of my achievement of a 6.5 IELTS score
 - [3]Executive Member - DIU-CPC Daffodil International University Computer and Programming Club
 - [4]Works as an IT volunteer at the 15th Auap General Conference 2022
 - [5]Quarter Finalist at Climate Science Olympiad 2023
 - [6]Runners up at ACC IT Carnival 2017
 - [7]Volunteer at BIM conference 2023
- Certificates