

With a background in Computer Science and the hands-on experience of running a small online clothing business, I've become increasingly curious about how technology and business can work together to solve meaningful problems. I'm a keen observer and fast learner, currently exploring ASP.NET to gain practical backend knowledge and build secured systems. As a fresh graduate, I'm eager to step into the real world, learn from experienced teams, and contribute to work that creates real impact.

Education

North South University | Bachelor of Science in Computer Science and Engineering **2020-2024**

- Awarded Merit Based Financial Aid (7th semester onward)

Academic Projects

Database Learning and Evaluation System (DB-LES) **Fall 2024**

Technologies: HTML, PHP, CSS, MySQL, SQL, XAMPP, JavaScript

- Developed a full-stack academic interactive platform enabling teachers to upload problem banks, students to submit solutions, and teachers to provide feedback and grades.
- Built dedicated role-based panels for students, teachers, and admins to manage interactions and system functionality.
- Designed a robust relational database using strong and weak entities, generalization, ternary relationships, and various cardinalities (1:1, 1:N, M:N); implemented full CRUD operations and a responsive UI with JavaScript for seamless interaction and mobile compatibility.

Autism Spectrum Disorder Detection - Machine Learning Project **Spring 2024**

Technologies: Python, Scikit-learn, Tableau, LaTeX

- Built and evaluated multiple machine learning models including Logistic Regression, Random Forest, XGBoost, and SVM to detect Autism Spectrum Disorder, using two diagnostic instruments: SRS and Q-CHAT-10.
- Conducted comparative performance analysis to determine which diagnostic tool offers more reliable ASD detection — introducing a novel perspective in model-based diagnostic evaluation.

Comparative Analysis of CNN for Deep Learning and Machine Learning Models for Effective Animal Image Classification - A combination of Machine Learning & Deep Learning **Spring 2024**

Technologies: EfficientNet B7, TensorFlow, Python, Keras, CNN for DL, ML models

- Conducted a comparative analysis of CNN and machine learning models for animal image classification.
- Utilized a custom dataset of 106 species, comprising over 10,000 animal images.
- Developed a web application using the model with the highest accuracy (CNN) to classify animals from Aardvark to Zebra.

Image Caption Generator - Deep Learning Project **Spring 2024**

Technologies: VGG16, LSTM, Python, TensorFlow

- Developed an image captioning system combining computer vision and natural language processing to generate descriptive captions for images.
- Trained the model on a wide range of images to improve accuracy and generate contextually relevant captions, utilizing deep learning techniques for both image recognition and language generation.

Temperature and humidity monitoring system using sensor **Fall 2023**

Technologies: STM32F103C8T6, DHT11 Sensor, 16x2 LCD, LED, Buzzer, STM32CubeIDE

- Built an embedded system using the STM32 microcontroller to monitor temperature and humidity in real time.
- Integrated DHT11 sensor for data input, with LCD display output and visual (LED) and auditory (buzzer) alerts based on threshold levels.

- Programmed and tested the system using STM32CubeIDE, focusing on microcontroller interfacing, sensor integration, and embedded control logic.

GoMental - a Mental Health Support App

Spring 2023

Technologies: Java, XML, SQLite, Android Studio, Google Cloud

- Developed an Android-based mental health support app offering appointment booking with psychiatrists, access to a mental health helpline (call/text), online medicine purchases, and diagnostic report scheduling.
- Designed and integrated a role-based system (User, Admin, Professional) with secure login, real-time data handling via SQLite, and a streamlined UI for mobile. Implemented appointment conflict checks and dynamic order summaries to enhance usability and accessibility.

WeeklyBazar - A Web-Based Grocery Shopping Platform

Spring 2023

Technologies: HTML, CSS, Python, SQLite3, JavaScript, Django

- Developed a full-stack web platform enabling users to pre-schedule their weekly grocery orders for timely delivery.
- Integrated a weekly planner that allows users to manage shopping lists and product orders efficiently, improving user experience and planning flexibility.

Bookstagram - A web-platform for Book Enthusiasts

Summer 2022

Technologies: HTML, PHP, CSS, MySQL, SQL, XAMPP, JavaScript, Bootstrap

- Built a full-stack web platform for book lovers with user/admin login, personalized profiles, book reviews, and e-library features.
- Designed a relational database and implemented SQL queries for dynamic data handling and admin insights.

Skills

Technical Skills:

Languages: Python, Java, C, C++, C#

Full-Stack Development: HTML, CSS, JavaScript, PHP, Django, SQL, MySQL, Firebase, ASP.NET

Frameworks & Tools: Git, Android Studio, Canva Pro, Figma, Tableau, Microsoft Office Suite

AI/ML: Machine Learning algorithms, Deep Learning (CNN), Prompt Engineering Basics

Soft Skills:

Teamwork, Time Management, Creativity, Problem Solving, Adaptability, Attention to Detail, Communication