# Yamin Adnan

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## **OBJECTIVE**

As a Computer Science & Engineering undergraduate student my first objective is to complete my graduation with a very good understanding of all the concepts and to have a very good understanding of all the tools and methodologies so that I can apply them to solve real life problems. I have passion for problem solving, research and project development and I am eager to take advantage of new chances to contribute with my abilities. I enjoy taking the lead and working with others to come up with new ideas. I'm dedicated to bringing innovation and making a real difference in a fast-paced environment.

# **ACADEMIC QUALIFICATIONS**

Bachelor of Science in Computer Science & Engineering Brac University, Dhaka, Bangladesh	<b>Fall21-Fall25</b> CGPA: 3.63
Higher Secondary Certificate (HSC)	2020
Cantonment English School & College, Chittagong	GPA: 5:00
Secondary School Certificate (SSC)	2018
Cantonment English School & College, Chittagong	GPA: 5:00

## **EXPERIENCE**

Junior Executive, Administrative and Creative department, Football Club Of Brac University, Dhaka, Bangladesh (March 2022 – August 2022)

• In this role, I was responsible for designing creative social media posts for the club's social media handle and handling various administrative activities during events.

Assistant Secretary, Performance department, Brac University Cultural Club, Dhaka, Bangladesh (October 2023 – May 2024)

• In this role, I was responsible for performing during different events of the cultural club and have performed during different plugged and unplugged shows.

## **RECENT PROJECTS**

## Gumbel-Softmax Feature Selection Networks for high-dimensional medical image analysis

Gumbel-Softmax based discrete feature selection inside 3D CNN pipelines to identify informative voxels and perform classification on high-dimensional MRI data.

Tech Stack: PyTorch, NumPy, Pandas, NiBabel, Scikit-learn, Matplotlib, TorchIO

#### Resonance

One-stop music platform to shop/rent instruments, book studios/pads, hire session musicians, and collaborate with others.

Tech Stack: MERN (MongoDB, Express, React, Node.js)

## **BrickByte**

A real estate project where users can look for properties to buy/rent through advanced search as well as sell/rent their properties by uploading their listings.

Tech Stack: MERN (MongoDB, Express, React, Node.is)

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### ONGOING RESEARCH PROJECT

# Optimizing the Early Detection of Dementia by Tracking the Progression of Parkinson's Disease Using Deep Learning and Computer Vision

- Cohort Selection: Define PD (with/without dementia) and healthy control groups using PPMI clinical data.
- **Setup:** Configure Python with NiBabel, Pandas, Scikit-learn, TensorFlow; organize MRI and clinical datasets.
- Image Pipeline: Load and visualize MRI scans using NiBabel and Matplotlib/Nilearn.
- Modeling:
  - Model 1: Extract features from longitudinal MRI for PD progression.
  - Model 2: Predict dementia using progression and clinical features.
- Evaluation: Assess with Accuracy, F1, ROC-AUC; apply Grad-CAM and SHAP for explainability.

## TECHNICAL SKILLS

**Languages:** Python, C/C++, Assembly

Database: MongoDB, MySQL

Python Libraries: NumPy, Pandas, Scikit-learn, Matplotlib, Seaborn

Frameworks: Tensorflow, Pytorch, MERN Stack

Office skill: Sheets, Word, PowerPoint

Version Control: Git, GitHub