



# DEBMALYA SUR

- Software Developer
- Web Application Developer
- Backend Engineer
- Machine Learning Enthusiast

## ACADEMIC HISTORY

Government College of Engineering & Ceramic Technology, Kolkata  
— B.Tech honors in Computer Science & Engineering  
Aug 2018 - MAY 2022  
9.86 CGPA till 7th semester

## TECHNICAL SKILLS

- C, C++, Python, SQL

## LIMITED EXPOSURE

- HTML, CSS, Bootstrap, Flask, SQLite3, Firebase

## ACHIEVEMENTS

- GATE CS AIR 405 on 2022.
- Secure 127th rank in SEAMO, 2017 from South East Asia region.

## CONTACT DETAILS

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Blog: <https://surdebmalya.hashnode.dev/>

## MY PROJECTS

### • Full Scale Web Application Development

#### A. BAUD NEWS WEB VIEW

- It's a user-specific News Web Application
- Build front-end with bootstrap and Flask
- Back-end logics are written in Python
- Used REST-APIs
- Used SMTP Server to sent verification mails

#### B. FRIENDSHIP METER GITHUB | WEB VIEW

- It's a Web Game Application to measure the strength of friendship
- Front-end is made with bootstrap and Flask
- Back-end logics are written in Python
- Used REST-API to store generated result images

### • Desktop Application Building

#### A. STUDENTS' REGISTRATION SYSTEM GITHUB | YOUTUBE VIDEO

- It's a Desktop Application to register a student into a local database
- Build front-end with Tkinter
- Back-end logics are written in Python
- Used SQLite3 for local database management
- Registration Cards can also be generated using this application

#### B. COVID-19 DESKTOP APPLICATION GITHUB | YOUTUBE VIDEO

- This desktop application was made to keep a track on COVID-19 cases
- I made front-end with the help of Tkinter
- Python is used to write back-end logics
- I did Web Scrapping to collect data and make those data visible with table

### • Machine Learning Projects

#### A. BREAST CANCER DETECTION GITHUB | WEB VIEW

- This is a classification problem
- Got **96.49%** accuracy by Random Forest Classification
- Made usable web application using streamlit

#### B. MRI & ALZHEIMERS CROSS SECTION ANALYSIS GITHUB

- This is a machine learning Regression problem
- Got **0.145833** mean absolute error by XGBRegressor

### • Game Development Projects

#### A. MEMORIZING POWER GAME GITHUB | YOUTUBE | BLOG ARTICLE

- Used pygame, Tkinter
- SQLite3 has been used to store score

#### B. SPACE SHIP GAME GITHUB | YOUTUBE | BLOG ARTICLE

- Used pygame for back-end logics
- Downloadable version is made

### • Discord Bot Making Using Python

#### A. HEART OF BOT

- It generates random images of user given size, transfers it into sketch
- It detects all edges of a picture, turns an image into black & white, gives news

#### B. CYKA BOT

- In this joint project, I had made the translation feature of the bot
- Here I also implement the QR code generation feature

### • Deep Learning Projects

#### A. CAT OR DOG RECOGNIZER GITHUB | WEB VIEW | YOUTUBE VIDEO

- This is a classification problem to classify cat and dog
- Made a sequential convolutional neural network (CNN)

#### B. FRUIT FRESHNESS MEASUREMENT YOUTUBE VIDEO | B.TECH FINAL YEAR PROJECT

- Here we did both classification & regression tasks
- We have used custom classification model and ridge regressor

### • Framework and Data Structures

#### A. AKDS-FRAMEWORK GITHUB

- Made major changes on Array, Queue portion
- Fixed bugs on Graph data structure

#### B. DATA STRUCTURE IMPLEMENTATION GITHUB

- Implement various algorithms and data structures
- Doing coding questions from [leetcode](https://leetcode.com/)