



Debmalaya Sur

MTech – Computer Science & Engineering – IIT (ISM), Dhanbad

Add. No: 22MT0121

My website: [surdebmalaya](#)

LinkedIn: [debmalaya-sur](#)

+91-9330427919

Email: 22mt0121@iitism.ac.in

GitHub: [surdebmalaya](#)



ORGANIZATIONAL PROJECT

A Blockchain-based Clustered Federated Learning approach for non-Independent and Identically distributed data —

JUNE 2023 – (Currently On-going)

- Final year thesis of IIT Dhanbad under the supervision of Prof. Sachin Tripathi
- Working on the emerging technology Clustered Federated Learning
- My objective of this thesis work is to come up an architecture which will be communication efficient and scalable as well as works well for non-IID data

ACADEMIC HISTORY

Indian Institute of Technology (ISM), Dhanbad — Master of Technology in Computer Science & Engineering

AUGUST 2022 – JUNE 2024 | Current CGPA 9.09

Government College of Engineering & Ceramic Technology, Kolkata — Bachelor of Technology in Computer Science & Engineering

AUGUST 2018 – JUNE 2022 | Graduated with CGPA 9.87

Bhatpara Amar Krishna Pathsala, Bhatpara

12th: APRIL 2017 – APRIL 2018 – 92.4%

10th: MARCH 2015 – MARCH 2016 – 93%

SKILLS

- Technical:** C++, C, Python, SQL, DSA, API, Agile Development
- Limited Exposures:** HTML, CSS, JS, Bootstrap, Flask, Django, MongoDB, SQLite3, Firebase

ACHIEVEMENTS

- I have written books on “C Programming Quick Start” and “The Blockchain Starter”. [My Books](#)
- Silver Medalist in my BTech college, 2022
- GATE CS AIR 405 on 2022
- 4th in Theory of Computation NPTEL examination, 2021
- Secure 127th rank in [SEAMO](#), 2017 from South East Asia region
- Gold Medalist in High Secondary examination in Barrackpore to Kalyani region, 2018
- Gold Medalist in Secondary examination among boys’ in Barrackpore to Kalyani region, 2016

POSITIONS OF RESPONSIBILITY

- I was the leader of my BTech Final year project and successfully able to make the coordination between the members of my team and delivered the project before time
- Lead 3–4-member team in various Hackathons

EXPERIENCE

Samsung Research Institute Bangalore —

JUNE 2023 – AUGUST 2023

- Worked on Render Thread Optimization.
- The flow of my approach was first knowing how the UI gets rendered for android theoretically
- Explored the codebase of android rendering on basis of the flow of rendering
- Worked on the texture optimization and come up with an algorithm which has a compression ratio of ~93%

PERSONAL PROJECTS

- Baud News — User-Specific News Web App**
Flask | REST API | SMTP Server [WEB VIEW](#)
 - Developed login system where user can create their own accounts and on the basis of their preferences the news will be shown & the data is updatable
 - Used SMTP server to send verification emails
 - For news updation, I have used Cronjob which updates news JSON file in every 2 hours
- Smart Attendance System — IoT based Project**
ML | IoT | Full Stack Development [GITHUB](#)
 - In this project I have tried to solve the issue of proxy attendance and the manual attendance taking issue
 - I have used ESP32 camera module to click picture, upload it on google drive via API, running a ML script to locate and recognize faces then upload a google sheet
- DS Chat — Real Time Chat Web App**
Django | SQLite3 | Bootstrap [WEB VIEW](#)
 - Full Scale web application for real time chat application
 - Used Django for backend development, AJAX has been used for user-friendly non-reloadable interface
 - For in-server database I have used sqlite3
- Students’ Registration System — Desktop App**
for college management usage
Tkinter | SQLite3 [GITHUB](#)
 - In this desktop application, I have implemented CRUD operations where the data will be stored into the local database
 - One can also download or generate the registration card of a particular student or all the class
- Breast Cancer Detection — Classification**
problem with web application
Machine Learning | Streamlit [GITHUB](#) | [WEB VIEW](#)
 - In this project I have developed a classification model which will predict the tissues are BENIGN or MALIGNANT on basis of certain data inputs
 - Got 96.49% accuracy by Random Forest Classifier
 - I have made a usable front-end with streamlit