SAKIB AHMED

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https://qbitlab.tech

SYLHET,BANGLADESH

EDUCATION

Blue Bird School & College

2018 - 2021

JOB/WORK EXPERIENCE

CO-Founder & CEO

Https://qbitlab.tech
Dhaka Job • Aug 2022 - Present
I'm working as CEO @ QBitLab, is primarily responsible for writing the code and overseeing technical aspects as well as managing Executive operations.

At Qbitlab, I was involved in development of apps like EHR (Electronic Health Record), Space AR, and other AI/XR solutions for clients and internal projects. I also launched free STEM boot camps, such as the Future Talent Program (FTP), to inspire and educate the next generation in technology and innovation.

TRAININGS/ COURCES

Machine Learning With Python

Coursera, Online
Apr 2023 - Sep 2024

Exploratory Data Analysis

Coursera, Online
Apr 2023 - Sep 2024

Deep Learning & Neural Networks with keras.

Coursera, Online
Jan 2024 - Jun 2024

PERSONAL PROJECTS

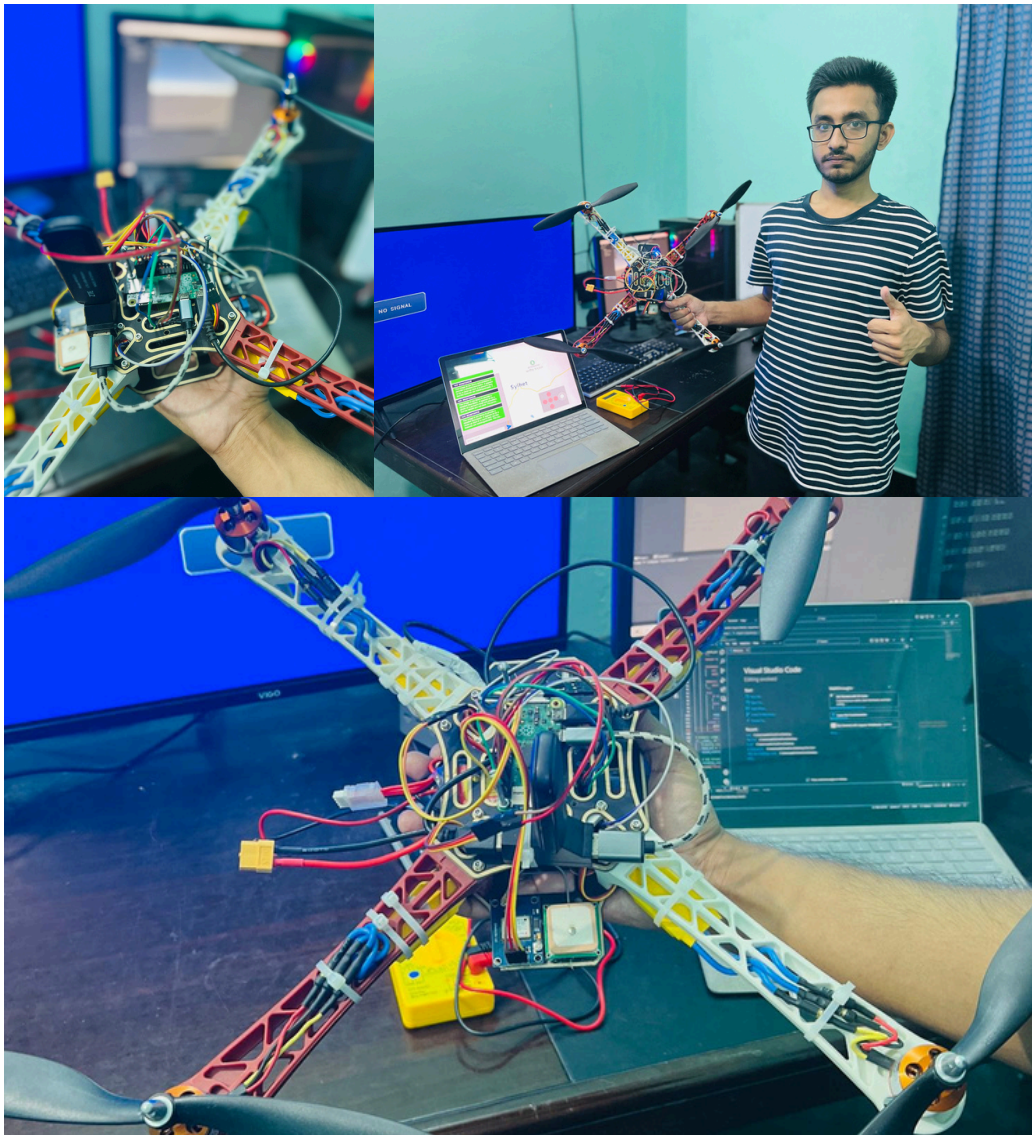
Autonomous Drone Inspired from Edith Spider Man

Sep 2023 - Dec 2023

https://github.com/Sakib323/AI-Powered-Autonomous-Drone-System-A-PADS-

https://huggingface.co/Sakib323

Inspired by E.D.I.T.H. from Spider-Man: Far From Home, I created my version using a multimodal model (combining L.L.M. and V.I.T.) to control a Raspberry Pi-based drone. The drone streams its camera feed for analysis, and I use Ngrok and Flask for connectivity, allowing manual or autonomous control. The drone features a Raspberry Pi Zero, MPU-6050, E.S.C., A2212 1000KV motor, Ublox NEO-6M GPS, a USB camera, and a 1500mAh lipo battery. I fine-tuned a llama 3 7b model with a Google V.I.T. for image analysis hosed on Azure. If an event like a flood occurs, the L.L.M. scrapes relevant news and autonomously dispatches the drone to the coordinates. The camera feed is analyzed by the V.I.T., which captions it and informs the L.L.M. for decision-making while hovering. The V.I.T. also reports observations from the mission.

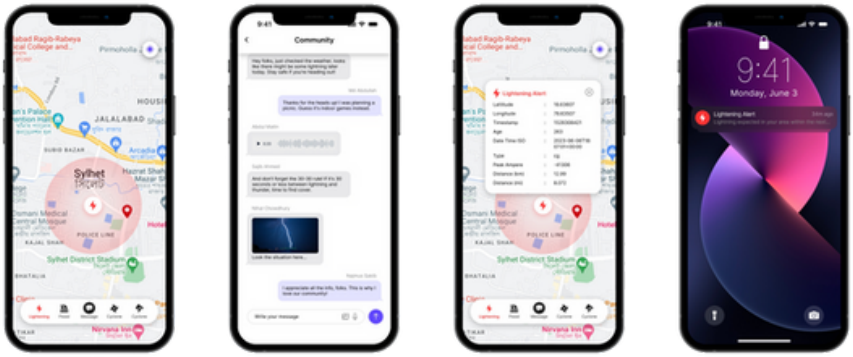


Sustainable Disaster Response Alert Mechanism

Sep 2023 - Dec 2023

https://github.com/Sakib323/Nasa-Space-App-challenge

SDRAM, or Sustainable Disaster Response Alert Mechanism, was my project for last year's NASA Space Apps Challenge. Given Bangladesh's vulnerability to disasters and frequent network outages, I developed a communication system using the LoRa module at 433 MHz, connected to a Node MCU for WiFi access. My app allows communication over a range of up to 12 km and possibly more through a half-duplex mesh topology. I trained a neural network to predict lightning based on live data such as temperature and humidity, accessible through the app. Additional features include flood detection, navigation to portable lightning arresters (a device I created for shelter), safe house locations during disasters, and a Natural Event Tracker for cyclones and typhoons.



Ai Based Electronic Health Record

Apr 2023 - Oct 2023

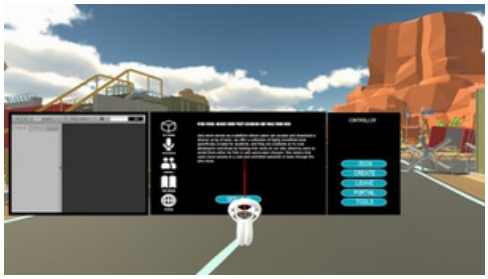
https://github.com/Sakib323/Ai_Based_Electronic_Health _ Record

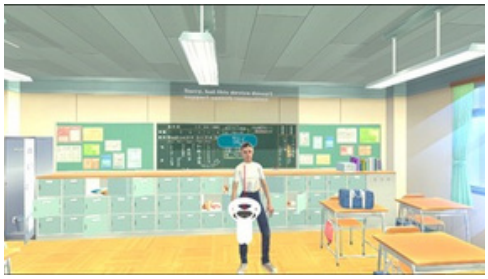
This AI-driven Electronic Health Record (EHR) solution is a multifaceted system, offering a wide array of functionalities and components that deliver significant benefits to a diverse range of users within the healthcare sector.

Navigating the Future of Education in a Virtual World With VITRO

Apr 2023 - Present https://qbitlab.tech/

Vitro is like a special virtual reality (VR) world (platform) just for learning. It's a place where students and teachers can come together in VR to study and learn collaboratively. In the Vitro store, users can download tools like VR Chemistry Labs, 3D viewers, AI PDF viewers, Virtual Computers, AI voice notes, and more to help them with their studies.






Explore the Cosmos with Our Cutting-Edge AR Application Space Ar

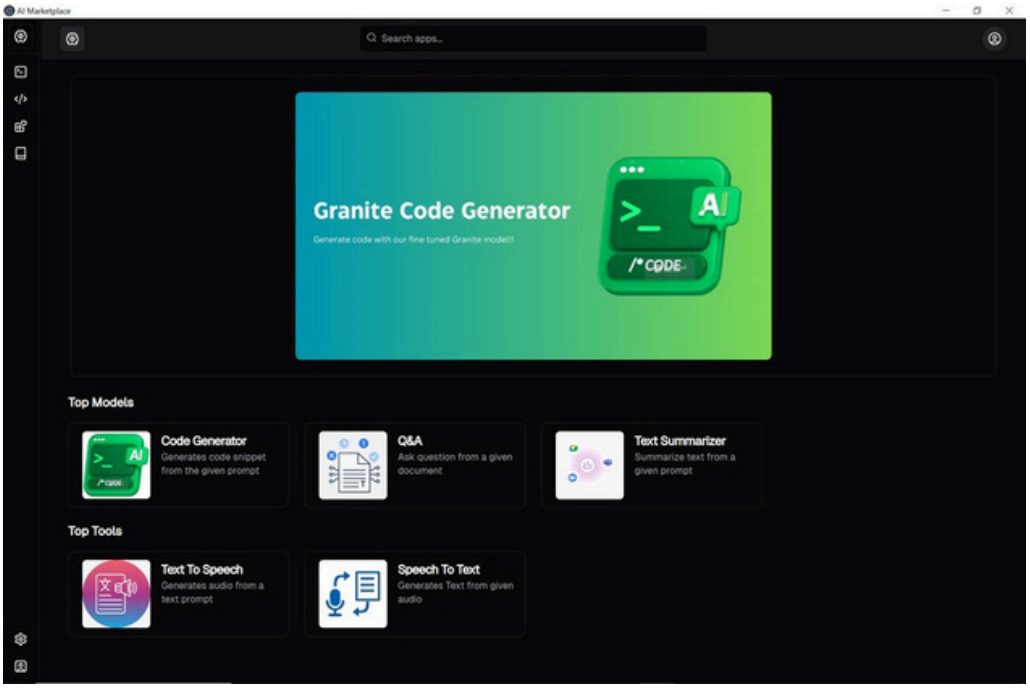
June 2024 - June 2024

https://qbitlab.tech/

Space AR is an app that uses augmented reality to help people learn about space. With the app, users can explore planets, moons, and other objects in the solar system by viewing them through their phone or tablet. It makes learning about space more interactive and easy to understand.


Ai Marketplace

June 2024 - June 2024
https://github.com/Sakib323/AI-MARKETPLACE-AIM
I have been fine-tuning various LLM models like LLAMA 2, LLAMA 3, GRANITE, and GPT for tasks such as code generation and text summarization. This inspired me to create an AI marketplace akin to an app store for AI models, where users can access my fine-tuned models and third-party models from Hugging Face. The platform features a playground tab with drag-and-drop functionality, allowing users to combine multiple models into custom pipelines for automating complex workflows. It also includes tools like text-to-speech, speech-to-text, and pdf-to-text. Users can export their custom pipelines as executable files (APKs or other formats) for local execution on devices like Android.



SKILLS

Data Science
Advanced

Machine Learning
Advanced

Deep Learning
Advanced

Neural Networks
Advanced

Data Structures
Advanced

JavaScript
Advanced

Java
Advanced

Python
Advanced

Unity Engine
Advanced

Unreal Engine
Advanced

C Programming
Advanced

C#
Advanced

C++ Programming
Advanced

Dart
Intermediate

Database Management System (DBMS)
Advanced

App Development (Android Studio)
Advanced

PORTFOLIO/ WORK SAMPLES

GitHub profile

https://github.com/Sakib323

Other portfolio link

https://qbitlab.tech

Hackathons and competitions

NASA Space Apps Challenge 2023

I was a global finalist at the NASA Space Apps Challenge, the world's largest hackathon. As the team leader and lead technologist, I developed SDRAM to address communication challenges during disasters in Bangladesh. I used the LoRa SX1278 module and NodeMCU connected to a React Native application. The system enables 12 km half-duplex communication, which can be extended using a mesh network to connect other LoRa devices. It also includes a neural network model to predict lightning and provide disaster alerts.
https://www.spaceappschallenge.org/2023/find-a- team/horizon-bd/

NASA Space Apps Challenge 2024

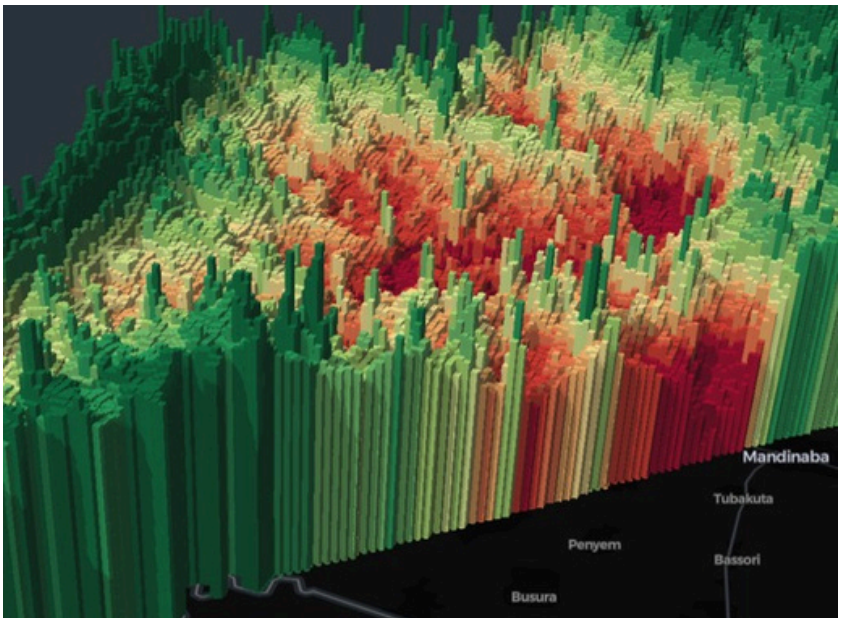
Perticipated on Nasa Space App Challenge again in 2024 and became a global nominee. I built an AR app in Unity (C#) for exoplanet exploration to make learning fun for kids. The app features 3D object interaction, solar system visualization, and exploration of celestial bodies.
https://www.spaceappschallenge.org/nasa-space-apps-2024/find-a-team/orbitus/

Pale Blue Dot Visualization Challenge

In the **Pale Blue Dot Visualization Challenge** by NASA, I ranked 65th worldwide.

You can check out my solution on GitHub: https://github.com/Sakib323/PalaBlueDot_From_Data_Driven

For a 3D visualization of the project, visit: https://graceful-ganache-181d92.netlify.app/



Microsoft Imagine Cup

Microsoft Imagine Cup: In the Microsoft Imagine Cup 2023, I served as the team lead and lead technologist, securing $10,000 in funding for my startup, QbitLab. Our MVP product was Vitro, a VR learning platform (Unity/C#, AI, Azure) where students and teachers collaborate. Its store offers tools like VR Chemistry Labs, 3D viewers, AI PDF readers, virtual computers, and AI voice notes to enhance learning.

Microsoft ImagineCup

IBM TechXchange Pre-Conference watsonx Hackathon

I became top 100 global finalist @ IBM TechXchange Pre-Conference watsonx Hackathon.During the hackathon, I fine-tuned open-source LLMs like Llama 3, Granite, and GPT to boost productivity. I built a React Native app hosting these and third-party models, creating a Play Store-like marketplace where users can drag and drop models and tools to build pipelines.

Activities

Teaching FTP BootCamp from QbitLab

April 2024 - Ongoing
https://ftpbootcamp.qbitlab.tech/
As a mentor at the Future Talent Programme Bootcamp, I taught students C++ and Python through hands-on DIY projects with microcontrollers like Arduino and NodeMCU. The main goal of this bootcamp was to address the significant gap in STEM education in Bangladesh.








Advisor @ Metropolitan University Geography and Astronomical Society

Jul 2023 - Aug 2024

I served as an advisor in the Metropolitan University Geography and Astronomical Society (MUGAS) for a year and attended conferences and BootCamp sessions organized by MUGAS as a mentor.

Job

Freelancer @ Fiverr

Sep 2023 - Dec 2023

https://www.fiverr.com/jscsskl

I worked as a freelancer on Fiverr as a Cross Platform App developer with React Native and an AI engineer. Provided tech solutions, including app development (React Native), AI model development, and AR/VR projects, tailored to clients' needs. Delivered high-quality results, ensuring customer satisfaction and building strong professional relationships.