

EDUCATION

NANYANG TECHNOLOGICAL UNIVERSITY

BACHELOR OF ENGINEERING COMPUTER SCIENCE

(WITH SECOND MAJOR IN BUSINESS)

August 2022 - Present | Singapore

cGPA: 4.4/5

THE SHRI RAM SCHOOL, ARAVALI

INDIAN SCHOOL CERTIFICATE (ISC)

99.25% (All India Merit List)

WORK EXPERIENCE

SCHOOL OF HUMANITIES, NTU | WEB DEVELOPER

May 2023 - Dec, 2023 | Singapore

- Engineered and deployed **AskWaii.com**, a full-stack web application to enhance student learning for NTU's compulsory course CC0001, leveraging **Vite**, **React.js**, and **Node.js** with CI/CD on Azure through GitHub Actions.
- Pioneered a personalized writing feedback tool for over **1000+ students** utilizing **OpenAI's GPT-4 API**, enhancing the academic support system.
- Led cross-functional collaboration with **faculty and UI/UX teams** to refine application design, informed by comprehensive user research and feedback.

NATIONAL INSTITUTE OF EDUCATION | RESEARCH ASSISTANT

May 2023 - Sept 2023 | Singapore

- Developed and deployed an **automated essay evaluation tool** based on Prof Zhu Goaxia's framework, advancing interdisciplinary research through NLP and BERT model optimization.
- Delivered a **user-friendly dashboard** for academic essay assessment using **React.js**, **Node.js** and **MongoDB**, streamlining the evaluation process for educators.

PROJECTS

VIBES | LINK | AWS, REACT, DJANGO, NODE.JS

Feb 2024

- Developed "Vibes," a **Top 10 finalist AI music platform at SCSE TechFest**, using React, Tailwind CSS with Shadcn/UI, and a **microservices architecture** including a proxy server and Django on an EC2 instance.
- Innovated with **Meta's MusicGen model**, **OpenAI's GPT-4**, and **GPT-4 Vision** to generate royalty-free music, addressing copyright challenges for content creators.

CARDIOVASCULAR DISEASE DETECTION | LINK | PYTHON, JUPYTER

NOTEBOOK

Jan 2023

- Implemented and evaluated multiple machine learning models including **Logistic Regression**, **Classification Tree**, **Random Forest**, **K-Nearest Neighbor** (achieving highest accuracy of 73.2%), and **Neural Network**, conducting a comprehensive analysis for cardiovascular disease prediction based on health data and lifestyle factors.

GPTBOOK.CLUB | LINK | NEXTJS, GPT API

Mar 2023

- Co-created GPTBook.Club is a platform where users can converse with their favourite books. Developed using a **OpenAI's ada embeddings**, and **cosine similarity search**.
- Utilized various **NLP techniques** to convert books into bite-sized Notion templates.

SKILLS

PROGRAMMING

Python • Java • JavaScript • TypeScript • React • Express.js • Node.js • Next.js • Three.js • C • C++ ReactNative • Flutter

DATABASES

MongoDB • SQLite

VCS & BUILD TOOLS

Git • GitHub Actions

CLOUD SERVICES

AWS • Azure

LINKS

Github:// **sheldor07**

LinkedIn:// **Yajat Gulati**

Twitter:// **@GulatiYajat**

COURSEWORK

Data Structures and Algorithms
Algorithm Design and Analysis
Object Oriented Programming
Introduction to Data Science
Linear Algebra
Discrete Mathematics
Computer Organisation and Architecture

ACTIVITIES

Hackers4Charity Chairperson,
NTU Open Source Society
Head of Events,
Google Developer Student Club
Grade 7 Pianist,
Trinity College London