SARTHAK TAYAL

004 SLN Serenity,
3rd crossroad, Alfa Gardens Layout,
Krishnarajapura,
Bangalore 560036

+91 8000029365
sarthaktayal.noida@gmail.com

EDUCATION

Delhi Technological University **Delhi, India** **Aug 2019 – June 2023**
2023

- **Bachelor of Technology Electronics and Communication Engineering**
- **Relevant Courses:** Data Structures and Algorithms, Deep Learning, Computer Architecture, Signal and Systems

Aklank Public School, Kota **Rajasthan, India** **March 2017 – March 2019**

- Physics, Chemistry, Maths (CBSE Board), Class12

Delhi Public School, Harni **Gujrat, India** **March 2015 – March 2017**

- Physics, Chemistry, Maths (CBSE Board), Class10

LANGUAGES AND TECHNOLOGIES

- **Programming Languages:** C, C++, Python,HTML,CSS,SQL,JAVAscript
- **IDEs and Programming Tools:** Visual Studio Code, Google Colab, JupyterLab
- **Other technologies/frameworks:**Git and Github, NLP, Image classification,Django,Tkinter, MySQL
- **Programming Skills:** Object Oriented Programming (OOPS), Database Management System (DBMS), Data Structures and Algorithm (DSA)**,** SOLID, Agile

PROJECTS

- **Weather Monitoring System:** Developed a Weather Monitoring System that fetches real-time weather data for Indian metros, aggregates metrics, sends threshold alerts via SMS, and visualizes trends through an interactive Dash-based dashboard. *(Python, Dash, Openweathermap API, Twilio, MongoDB)*
- **Abstract Syntax Tree:** Built a MongoDB-backed rule management system that creates and stores rule-based ASTs, evaluates conditions on input data, and checks rule compliance for dynamic validation in Python.*(Python, MongoDB)*
- **Blogspot:** Developed a web application using the Django framework that allows users to register and login to post, read, edit, and delete blogs, as well as add or delete comments and media. Implemented secure authentication and authorization mechanisms for user management. Utilized SQLite for efficient data storage and retrieval. *(Python, DJango, HTML, CSS, Javascript, sqLite, SQL, bootstrap)*
- **ISS Overhead Notifier:** Developed an application using Python that sends email and SMS notifications when the International Space Station (ISS) is overhead and visible from the user's location. *(Python, ISS Position API, SMTP email,Twilio API)*
- **Flight Deals:** Developed an application that notifies users whenever highly discounted flights to specified locations are available. Implemented automated notification functionalities using Python and integrated APIs. *(python,Twilio API,Tequila API)*

- **To-do App:** Developed an application that allows users to set reminders for tasks with deadlines, providing notifications via SMS, and email. Implemented automated reminder functionalities using Python and integrated APIs. *(Python , Smtp API call)*
- **Birthday Wisher:** Developed an automated application using Python that sends personalized "Happy Birthday" emails to recipients on their specified birth date.Integrated SMTP API for efficient and reliable email delivery. Enhanced user experience through timely and automated birthday greetings. *(Python, smtp API)*
- **Password Manager:** Developed an application using Python and Tkinter that generates and securely stores passwords for specific websites and usernames. Implemented random password generation techniques to ensure strong and unique passwords. Enhanced security through encryption and secure storage practices to protect sensitive user information. *(Python, Tkinter,Random)*
- **Quiz:** Developed an application using Python and Tkinter that presents a quiz consisting of ten true/false questions. Integrated the Open Trivia Database (Opentdb) API to randomly fetch questions for each quiz session. Implemented interactive features with Tkinter for user interface design and quiz navigation. Ensured dynamic quiz content and engagement through randomized question selection from the API.*(Python, Tkinter, Opentdb API)*
- **Pong:** Developed the classic Pong game using Python and the Tkinter library for the graphical user interface. Implemented game mechanics, including paddle movement and ball physics, to recreate the original gameplay experience. Utilized Tkinter for creating an interactive and visually appealing user interface.
- **Hangman:** Developed a classic word-guessing game of Hangman using Python, playable via WhatsApp messages. Integrated API calls to facilitate game interactions and messaging. Ensured seamless user experience and real-time gameplay through effective backend development.*(Python ,API call)*
- **Disaster Tweets:** Developed a machine learning model using LSTM for natural language processing to predict whether Tweets are about real disasters or not. Utilized a dataset of 10,000 hand-classified Tweets for training and evaluation. Implemented in Python, leveraging NLP techniques to achieve accurate predictions. *(Python,NLP)*
- **classification of iris species:** A python code to distinguish between three different sub species of iris flower based on petal length. *(python)*
- **Breast cancer Histopathology:** Developed a convolutional neural network (CNN) for the accurate diagnosis of breast cancer through the classification of MRI images. Implemented the model in Python, utilizing advanced image classification techniques to improve diagnostic accuracy. Contributed to enhanced medical diagnostics through the application of deep learning in healthcare. *(Python, image classification)*