ANAMIKA LOCHAB, 18BCE10035

Senior at VIT Bhopal

Solution-oriented computer science student having a solid foundation in mathematics, programming, and logic.

DATA ENTHUSIAST

About Me

- I am attending the Computer Science and Engineering program at Vellore Institute of Technology (VIT Bhopal University), one of the exclusive institutions in India that adopts an active learning approach.

- I thrived in this intense and challenging environment and currently rank 2nd across all departments in my university.

- I spent the majority of my undergraduate career exploring computational solutions that had real-world applications.

- I hope to build on this experience further through artificial intelligence and machine learning.

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Website
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LinkedIn
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PROJECTS

Completed Projects

- Real-Time Sign Language Detector
- Web Phishing Detector
- Voice Assistant
- Text to speech Converter
- Stray Ping
- Teacher's Toolkit
- Never Drown

Ongoing Projects

- Aid-Quest
- NHIS School Website Development

Other Projects

- Morse Code Decoder with Arduino UNO
- Fake New Analysis with R
- DC Motor's speed and direction controller & Temperature Sensor with Arduino UNO
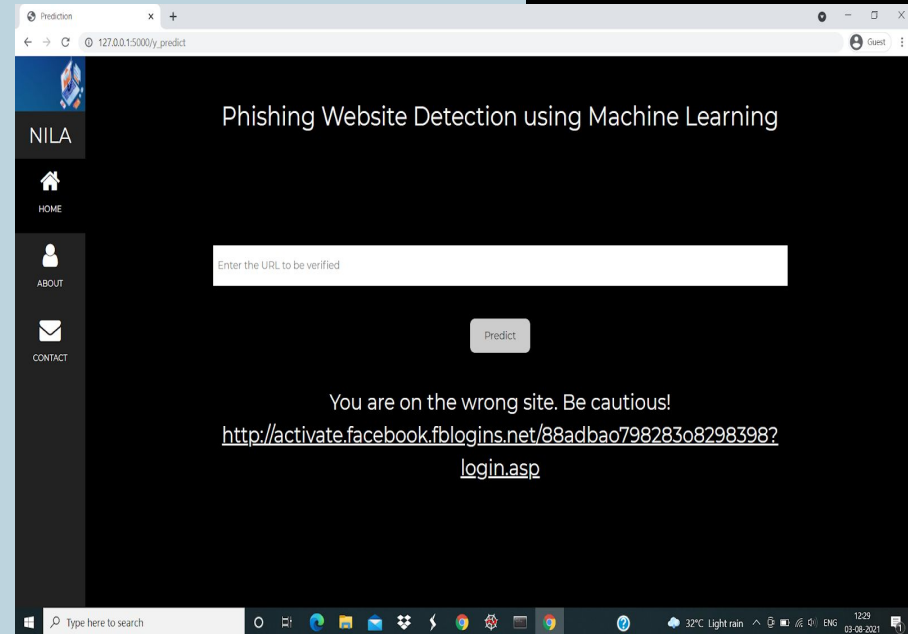
Real-time Sign Language Detector

Built an end-to-end custom detection model that allows us to translate sign language. Worked with Tensorflow object detection and OpenCV for this real-time detection. Trained and tested with final results at loss value 0.15. In the sign language detector module, I used keyframes to split continuous sign language gestures into a sequence of signs and was also responsible for bounding box matching, labeling for image annotation. I used the Mobilenet SSD (Single Shot Detector) model, a 2-layer model, one for filtering and one for combining. Two layers allowed me to reduce the computation time and model size for use on smaller devices.

Web Phishing Detection

Deployed supervised machine-learning algorithms using Python libraries and packages in order to detect phishing websites to protect users from the dynamic nature of phishing URLs.Logistic regression gives 91.67% accuracy for detection. In this Python flask application, the URL is taken from the HTML page and it is scraped to get the different factors or the behavior of the URL. These factors are then given to the model to know if the URL is phishing or safe and the result is sent back to the HTML page to notify the user.

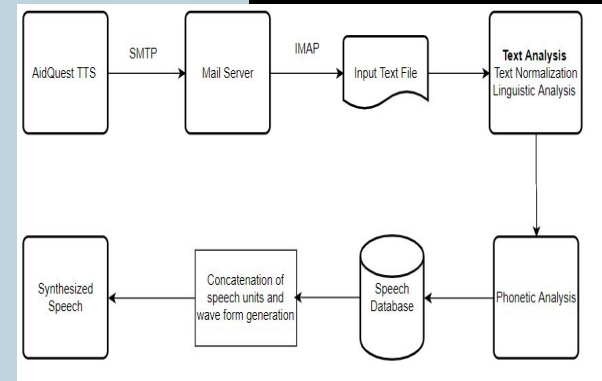# Voice Assistant & Text-to-Speech Converter

Text to Speech -
- Developed in Python and uses IBM Watson's speech synthesizer to read out text.
- Created an email bot and added it to this app to read-out unseen emails.
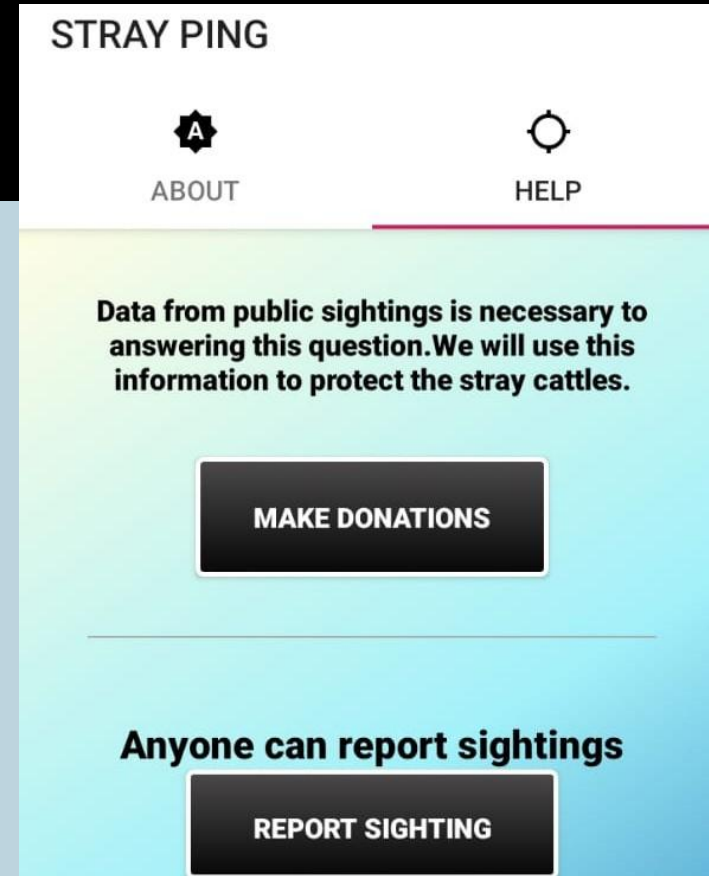
Voice Assistant -
- Speech Recognition library in Python is used for performing speech recognition online and offline.
- Converts speech into text using Google Cloud Speech API.
- Uses pyttsx3 TTS library to answer the user.
- Able to access platforms like Google, YouTube, StackOverflow, Wikipedia etc.

Stray Ping

Developed an android app in Java through which users can submit images of stray animals to municipal corporations to get the animals sent to nearest shelters and used Firebase to store user information. I was responsible for core application logic, API integration, creating the back-end for storing user data, and user authentication. It was made in Android Studio. One of the most important tasks was to find the nearest municipality or city corporation based on the user's location which posed an issue. For this I implemented google places API web service to find the nearest one by ranking them based on distance rather than prominence.
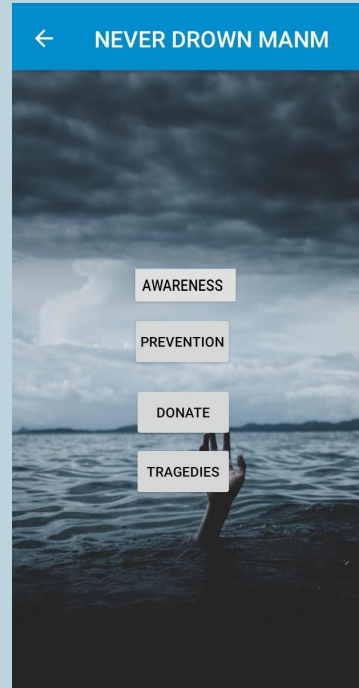

STRAY PING

ABOUT   HELP

Data from public sightings is necessary to answering this question.We will use this information to protect the stray cattles.

MAKE DONATIONS

Anyone can report sightings

REPORT SIGHTING

Never Drown & Teacher's Toolkit

Never Drown -
- Created a static app using HTML, CSS, and JavaScript.
- Tutorial app to spread the word about drowning, and to increase awareness to save lives.
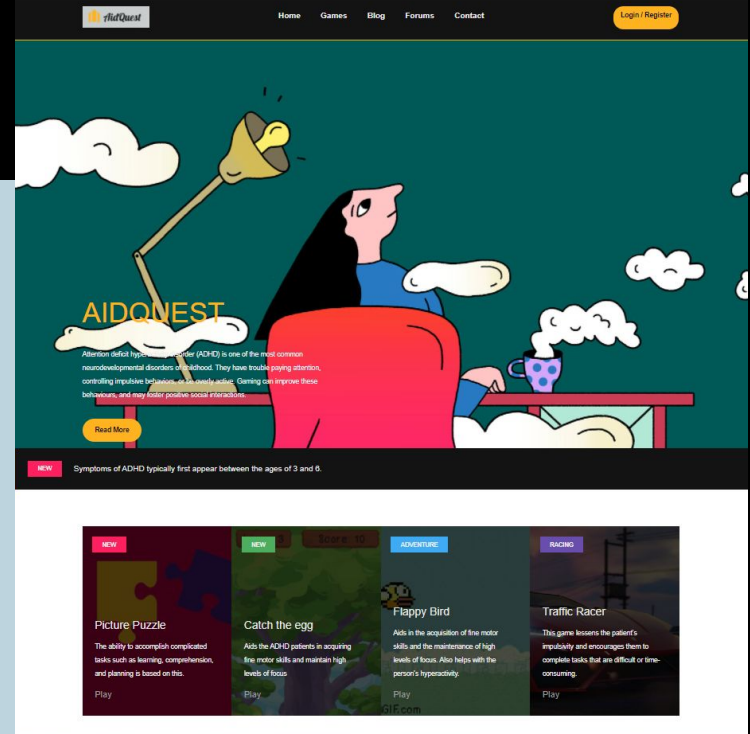
Teacher's Toolkit -
- Created in Python using Tkinter interface.
- Application to handle student, teacher data and help teachers in daily classroom activities, work, projects.

← **NEVER DROWN MANM**

AWARENESS

PREVENTION

DONATE

TRAGEDIES

TEACHERS TOOL KIT

ADMIN LOGIN

TEACHER LOGIN

STUDENT LOGIN

Aid-Quest

- A website containing an array of different games that can help people with ADHD, and other lack of attention problems by improving focus, visual-spatial skills, and problem-solving abilities.
- Trains children with ADHD through games like Picture Puzzle game, Memory games.
- ML based analysis on game data of each player regularly based on ADHD and non-ADHD dataset.
- Tracks progress and improvement in users.

Work Experience

New Heights International School | 01/2022-Present
Web Developer
- Website at nhinternationalschool.org

SmartBridge Educational Services Private Limited | 07/2021-07/2021
Externship
- Applied data science powered by IBM.
- Created a website to detect and predict e-payment phishing websites using IBM Watson.
- Gained practical Python skills and applied them to data analysis.
- Learned DevOps fundamentals, Agile training modules, and design thinking.
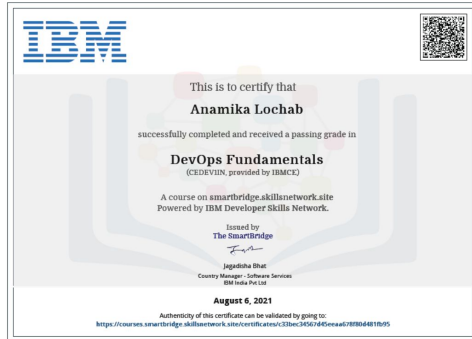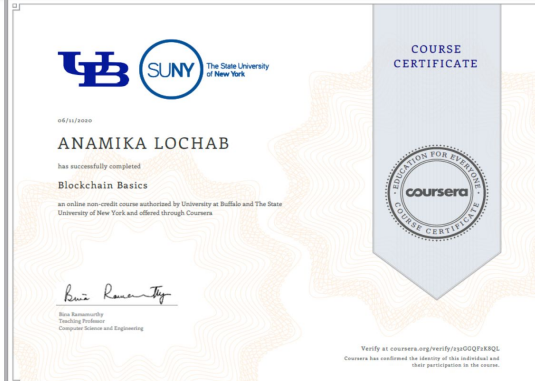
Work Experience

Excavate Research and Analysis | 04/2019-06/2019
Software Engineering Intern

- Worked on dynamic real-time web development in Angular.
- I was responsible for statistical weighting and data automation in Aspose cells in C# for various clients like Orange mobile company, VEON Bangladesh, and Banglalink.
- Aided in various survey data analysis using SPSS.
- Drafted documentation on data automation for future interns

CERTIFICATIONS

CERTIFICATIONS

Certificate of Completion

This is to certify that Anamika Lochab successfully completed 18 hours of C++ Tutorial for Complete Beginners online course on Jan. 20, 2019

John Purcell
John Purcell, Instructor

&

Udemy

#BeAble

PCAP: Programming Essentials in Python

Statement of Achievement

Presented To:

Anamika Lochab
Name

During the Cisco Networking Academy® self-paced course, the student has studied the following Skills:

- the universal concepts of computer programming (i.e. variables, flow control, data structures, algorithms, conditional execution, loops, functions, etc.);
- developer tools and the runtime environment;
- the syntax and semantics of the Python language;
- the fundamentals of object-oriented programing and the way they are adopted in Python;
- the means by which to resolve typical implementation problems;
- the writing of Python programs using standard language infrastructure;
- fundamental programing techniques, best practices, customs and vocabulary, including the most common library function in Python 3;

M. Wichary
Maciej Wichary
VP.OpenEDG Python Institute

9 Jun 2020
Date

By completing the course, the student is now ready to attempt the qualification PCAP-Certified Associate in Python Programing certification, from the OpenEDG Python Institute.

www.netacad.com www.pythoninstitute.org

Certificate of Completion

This is to certify that Anamika Lochab successfully completed 2.5 hours of Angular for Beginners Course (includes FREE E-Book) online course on June 11, 2019

Angular University
Angular University, Instructor

&

Udemy

#BeAble

Certificate of Completion

This is to certify that Anamika Lochab successfully completed 12.5 hours of Angular & NodeJS - The MEAN Stack Guide online course on June 28, 2019

Maximilian Schwarzmuller
Maximilian Schwarzmüller, Instructor

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Udemy

#BeAble

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simplilearn

Certificate of Achievement

Congratulations!

Anamika Lochab

You have successfully completed our training program on

Introduction to Project Management

You are hereby awarded 4 hours of PDU

03rd Jun 2020
Certificate code : 1929491

Krishna Kumar
CEO

Certificate of Completion

This is to certify that Anamika Lochab successfully completed 12.5 hours of Angular & NodeJS - The MEAN Stack Guide online course on June 28, 2019

Maximilian Schwarzmuller
Maximilian Schwarzmüller, Instructor

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Udemy

#BeAble

EXTRACURRICULAR
ACTIVITIES

- Organized My VIT Bhopal Game Design Competition.
- Organized Quiz-O-Mania 2020, an aptitude test conducted by Department of Mathematics.
- Organized Entrepreneurship club events like Sell-a-thon, AdMania, Treasure Hunt and various masterclasses.
- Organised One Idea Competition, a search for one simple, cost-effective idea that could improve and benefit VIT Bhopal and the community at large.
- Ranked 3rd in Quiz-O-Mania 2019.
- Twice won the Zumba Club dance competition in 2018, 2019

Volunteer Work

The Dawning Educational Society 05/2020 – 09/2020
Volunteer Teacher
- Tutoring and technical support for the mission to educate rural children during the COVID-19 pandemic.

Yugen Education Foundation 01/2020 – 04/2020
Book Reading and Content Creation
- Transforming the education system by helping rural area teachers and students to learn, grow and transform.