

Kinshuk Phalke

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EDUCATION

Georgia Institute of Technology

BS COMPUTER SCIENCE

Coursework: Leap Seminar, Object Oriented Programming, Linear Algebra with Vector Spaces

Atlanta, GA | Aug 2021-

WORK EXPERIENCE

NATIONAL UNIVERSITY OF SINGAPORE | STUDENT RESEARCHER

Singapore | Apr 2019-Dec 2019

- Created a **Machine Learning** based app to accurately estimate the calories required by a person at a certain time to control food waste.
- Researched and devised relations between **Ghrelin**, the hunger hormone, and calories required by accounting for factors like BMI, Diet Regime and Food Schedule. Used this data and relationship to train the machine learning model.
- Followed **Design Thinking** principles in ideation and worked with Dr. Tan on core principles of the idea. Worked intensively with Prof. Lisa of NTU on User Experience and on Logo Design.
- Presented the app to judges and won the **Best Presentation Award**

MANIPAL ACADEMY OF HIGHER EDUCATION | SUMMER INTERN

Dubai, UAE | Jul 2019 - Aug 2019

- Used Google's **OpenCV** to create an Object Recognition Model that uses the Computer's Webcam to recognize object placed.
- Worked with **Arduino** and C in creating a **PID Line Following Robot** with the help of Ultrasound and Color Sensors created and interfaced an Arduino robotic car with the Bluetooth Module. Connected the car to a phone via mobile app.
- Learned about **Convolutional Neural Networks** and about Arduino including the different pins and the related input, the modules, the different signals and how **Micro-Controllers** Function.

PROJECTS

TWITAKE 

MONGODB, EXPRESS.JS, REACTJS, NODE.JS, PYTHON, NLP, TWITTERAPI

A full-stack fake disaster tweet analysis tool that uses TwitterAPI to extract the text from the tweet link and data processing tools like lemmatization, tokenization, N-Grams, Stop Words, removal of punctuation, and a TD-IDF based Logistic Regression NLP model with a 81% accuracy.

MENTAL HEALTH CHAT 

REDIS, DOCKER, MONGODB, EXPRESS.JS, REACTJS, NODE.JS, SOCKET.IO

A timed chat for people to share and talk about issues their having in relation with their mental health and help them overcome it. A message in the Redis database to expire in about 6 hours in order to encourage people to come out and discourage users calling each other out. Created a Dockerized App with a Redis Instance during development.

CRAVESCALE 

PYTHON, MACHINE LEARNING

An app to combat food waste that uses machine learning to make an accurate guess on the calories based on factors like BMI, Diet Regime and Food Schedule. These calories are then converted to the users favourite foods and the quantity so that the user can avoid ordering excess food and wasting.

SPAM FILTER 

PYTHON, NUMPY, SCIKIT-LEARN, PANDAS, WORDCLOUD

A spam classification TD-IDF Logistic Regression NLP model with a 95% accuracy to be used in mail and SMS filtering. Visualized and analyzed data using WordCloud and worked on setting optimal parameters.

RESEARCH

IMPACT OF AIRPLANE CONTRAILS & AVIATION POLLUTION ON ENVIRONMENT

A research project to build a device that can monitor the pollution levels in the atmosphere mapping out hot spots and then aiming at decreasing pollution at these sites by attaching a special filter to the airplanes which out decrease the thermal trapping capacity and the increase the efficiency of the fuel to decrease the greenhouse gasses released.

SKILLS

Languages: Python, C, Java, C++, C#, Bash, JavaScript, HTML/CSS

Web Development: ReactJS, Express.js, Node.js, Bootstrap, Bulma

Electronics: Arduino IDE, Raspberry Pi, LEGO Mindstorms

Technology: Git, MATLAB, Docker, Postman, \LaTeX

Databases: SQL, MongoDB, Redis

App Development Flutter, Ionic Framework, React Native