ABHISHEK|ME19B069| Indian Institute of Technology, Madras

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# EDUCATIONInstitute Degree Timeline CGPA/%

Bachelor of technology, IIT Madras Mechanical engineering 2019 – 2023 7.91

Maa, Sarasvati School, Kaithal 12th Standard 2017 – 2018 89.8

Government School, Kaithal 10th Standard 2015 – 2016 86.4

# WORK EXPERIENCE

**Full Stack Developer Intern, Jivass Technologies**  Jun 2021 - Jul 2021

* Worked on ReactJS for frontend and Django for backend, the user database was PostgreSQL Created React Web Application. Worked a codebase of around **1GB**.
* Project Included **Dummy** Data Creation, **Primary** **Dashboards** for **Customers**, **Supervisors**, and Super admin.
* Created Website till alpha phase, as per client demands

##### Full Stack Developer Intern, Chillitray Technologies Mar 2021 - May 2021

* Worked on building **token** and **OTP-based** authentication systems with sessions.
* Implemented **HTTP authorization**
* Created API s for sending **SMS’s, Emails** for verifications of accounts. Built different types of media and other types of **API’s** as per needs

##### Machine Learning Developer Intern, FTS (Failure to Success) May 2021 - Jul 2021

* During the Internship, two datasets were given to analyze. Both datasets had gases and particulate matter but one had hourly frequency and the other has a daily frequency
* Analyzed the day-wise data to get an algorithm that can calculate **AQI** from a gaseous composition
* Built an **LSTM** based time series prediction algorithm on **city-by-hour** data. Processed data with **1000000 rows** and 8 columns.

**Machine Learning Intern, Go Data Insights** Jun 2021 - Aug 2021

* ***Project GREEN SCORE*:** Built a system with which one can calculate the greenery score of an area with **longitude, latitude**, and radius. Built algorithm for calculating the green score. Used open street map api to fetch the data for the algorithm. Calculated the greenery of an area accurately up to **1km** [Blog](https://www.godatainsights.com/post/track-delhi-sustainable-development-goal-greenest-area)
* ***Project FIRE COUNT PREDICTION*:** Analyzed NASA’s fire data from the **MODIS satellite**. built a fire count prediction system for a region (a longitude, latitude bounding box). Worked with a dataset of around **4 million rows** [Blog](https://www.godatainsights.com/post/monitor-forest-fire-risk-for-insurance-purposes)
* ***Project CRYPTO PRICE PREDICTION*:** Built a stock price prediction system. But This is different from general stock price prediction systems because it also considers the effect of **current news sentiment** and shows its effect on prediction too. [Blog](https://www.godatainsights.com/post/fin-social-analysis-of-rising-cryptocurrencies)
* Created a robust **python package** for the projects which was directly inserted into the **company’s backend**.

# PROJECTs (Self)

**Text To Image Generator**

* The aim is to convert a written text (like “a blue flying bird”) into an image. NLP is used to extract a feature vector from the text description.
* GANs are used to create images from a combination of **text embedding (1024)** and **random latent vector (100)**.

**Image Clustering with K means**

* The idea is to create an Image clustering model which can be used to create clusters from large dataset of images.
* If someone is limited by computing resources then this technique can be used for sampling images. so that models can be tested on samples.

**Project FND**

* The aim of this project is to classify news articles fake or real.
* To get the accurately classified collection of news as real or fake I have built a deep learning **LSTM based** model. After using many training techniques, I got a **validation accuracy** of **0.9387** with training accuracy of 0.9538%.

**Deep Convolutional Generative Adversarial Network**

* The aim of this project is to build model with which one can generate new images after training the model.
* During training model was found robust to result on addition of new images to training set.

# SKILLS AND KNOWLEDGE BASE

Programming Languages: Working With- C++, Python, SQL, Worked With- Java, HTML, CSS, JavaScript, PHP, Django, React

**Data Science Skills:** Feature Engineering, Machine Learning, Deep Learning

**Python Libraries:** NumPy, Pandas, Matplotlib, Scikit-Learn, TensorFlow, cuDF\*

**Other:** Git, Jenkins, AutoCAD

# RELEVANT COURSEWORK

* Strength of Materials
* Deep Learning#
* Introduction To Data Analytics\*
* Probability and Statistics for Data Science#
* Introduction to C Programming
* Multivariable Calculus
* Differential Equations
* Series and Matrices
* Machine Learning Specialization, Washington University (Coursera)#

# Online

\* Current semester

# HACKATHONS

# Deep Learning Hackathon, IIT Madras Apr 2021

* 2nd Rank
* Deepfake Image classification.
* Developed a convolution architecture with skip connections, interconnection, Depth wise separable convolutions.

**Shaastra Hackathon, IIT Madras** Feb 2021

* Object detection, character recognition. completed the solution

**Univ- AI Hackathon, IIT Madras** Mar 2021

* Roc-AUC score of 0.869
* Data Augmentations, Feature engineering, classification. Used Stacking of 6 algorithms on top of a neural network.

# POSITIONS OF RESPONSIBILITIESPR Manager, National Service Scheme, IIT Madras Mar 2021 - present

* Here working as a PR manager in PR Team of NSS IIT M
* Learning to interact with people of different backgrounds and thinking’s

##### Project Member In SBoard, Electrical club, CFI1, IIT Madras Mar 2020 - present

* Working in project SBoard as a project member in the software module.
* Learning about R-pi, ROS, and Embedded Systems.
* Did research for haptic touch and Ultrasonic feedback

##### WebOps Coordinator, Mechanical Engineering Association, IIT Madras Aug 2019 - Apr 2020

* Created templates for websites with a team.
* Improved user interface to give a better user experience

\* Currently Working, 1- Center For Innovation

# PUBLIC PROFILES

GitHub: <https://github.com/Abhis-123>