ABHISHEK|ME19B069| Indian Institute of Technology, Madras

EDUCATION

Institute	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
- ***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
- ***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
- 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 RESPONSIBILITIES

PR 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, CFI[1], 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