# 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
RELEVANT COURSES			

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**Manufacturing Processes** 

Introduction To Data Analytics\*

Design of Machine Elements\*

Machine Learning Specialization, Washington

Series and Matrices

University (Coursera)

- Strength of Materials
- Measurements and Instrumentation
- Introduction to Applied mechanics
- Introduction to C Programming
- Multivariable Calculus
- Differential Equations

#### **PROJECTS**

# Image Clustering with K means, Self

- 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.

### Radiation Sensor, Measurements and Instrumentation Course project

- The aim of this project was to study a radiation sensor and create a detailed analysis report on it.
- Studied about types of radiation sensor. Studied Geiger Muller Counter thoroughly and talked with its manufacturers.

#### **Project SBoard, Center for Innovation, IIT Madras**

- The aim of this project is creating a touch keyboard in which one can switch from keys to mouse with a simple gesture.
- Learning R-pi and programming embedded systems
- Did research for haptic touch and Ultrasonic feedback. Now building software for the user interface and functionality. Due to COVID-19 we are not able to experiment things.

### **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 built a deep learning **LSTM based** model and trained it. After using many training techniques, I got a **validation accuracy** of **0.9387** with training accuracy of **0.9538**

#### WORK EXPERIENCE

# 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. <u>Blog</u>
- Created a robust **python package** for the projects which was directly inserted into the **backend**.

# 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** (sub admin type role), 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

#### SKILLS AND KNOWLEDGE BASE

Software and Tools: AutoCAD, GIT

#### **Programming Languages:**

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

#### Data Science Skills:

• Machine Learning, Deep Learning

#### **Python Libraries:**

NumPy, Pandas, Matplotlib, Scikit-Learn, TensorFlow, cuDF\*

#### **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.

#### 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, 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

### **PUBLIC PROFILES**

GitHub: <a href="https://github.com/Abhis-123">https://github.com/Abhis-123</a>

\* Currently Working

# Paused due to COVID-19