

TINKU DHULL

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AEROSPACE ENGINEERING (B.Tech)



EDUCATION			
Year	Degree/Qualification	Institute	CGPA/Marks
2018	B.Tech	IIT Kharagpur	8.04 / 10
2014	Higher Secondary	CBSE Board	89.6%
2011	Diploma	AICTE Board	74.5%
2008	Secondary	Haryana Board	10 / 10

WORK EXPERIENCE

Project Engineer Wipro Technologies Pvt. Ltd. June 2018 - Present

- Completed pilot project on 'drowsiness detection' using python and OpenCV
- Used python libraries like numpy, scipy, time module and image processing using imutils, opency packages
- Working on data extraction from insurance documents using python regular expressions

COMPETITIONS

Predict Ad Clicks HackerEarth Machine Learning Challenge July-August 2017

- Ranked 1 out of 5300 participants in the competition sponsored by IBM, won a prize money of \$700
- Predicted the probability of an ad click, created many new features to improve the model performance, got an auc of 0.684
- Used gradient boosting technique to train and validate the model on dataset of size 1.2 GB

Movie Recommendation System Capillary's IIT KGP Data Science Challenge

September 2017

- Built a movies Recommendation Engine based on the user history, secured 4th rank at my institute
- Used k-means clustering to create clusters of similar movies and recommending movies to a particular user

Digit Recognizer Kaggle March-July 2017

- To correctly identify the digits from handwritten images, fully connected neural network resulted in an accuracy of 97.4%
- To increase the accuracy, used **convolutional neural networks** which boosted the accuracy to 99.47%

Predict Damage to a Building

HackerEarth Machine Learning Challenge

June-August 2018

- Given the building and earthquake data, predict the degree of damage that is done to a building post an earthquake
- Dropped redundant features, used label encoding, feature normalization and LightGBM boosting algorithm for model building
- Able to achieve an F1 score of .7829 and featured in top 1% out of 7400 participants

Understanding Customer Purchase Behaviour

Analytics Vidhya

March-April 2017

- Using demographic data of customers and their purchase behaviours, built a model that predicts their purchase amounts
- Normalized the data after missing values imputation, applied various machine learning algorithms like **random forests**, **linear regression**, **deep learning**, **gradient boosting** to build the model
- Built an ensemble model of two boosting algorithms which gave the best result

INTERNSHIPS

Automation of Leave Management System ValeurHR E-Solutions Pvt. Ltd.

May-June 2017

- The project aimed to devise a model that can automatically sanction or reject the leave application of an employee
- Trained and tested the logistic regression model using 10 folds cross validation to avoid overfitting, got an auc of 0.8084
- The developed model replaced the manual method used before, hence increased efficiency and reduced latency

Market Research Zenten Media Pvt. Ltd. June 2016

- Devised a new model to analyse the text data using statistical software R, saving a lot of manual work and time
- Analysed the social media data and finally came up with a list of top Dermatologists and Veterinary Doctors in Gurugram
- The proposed work was implemented in the company's website

SKILLS AND EXPERTISE

- Programming Languages: R (proficient), Python (proficient), C (Intermediate), Java (Intermediate)
- Data Analytics: Machine Learning, Natural Language Processing, Deep Learning

RELEVANT COURSES

EXTRA CURRICULAR ACTIVITIES

- Part of 2 consecutive gold winning inter-hall Water-polo team, gold winning illumination and silver winning Rangoli team.
- Volunteer in National Service Scheme (NSS), taught English and Mathematics in Primary School, surveyed 2 villages and helped people in opening bank accounts