

**TINKU DHULL**

AEROSPACE ENGINEERING (B.Tech)

**EDUCATION**

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| **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, opencv packages
* Working on Human-Machine-Interface for In-Vehicle-Infotainment using Automotive Grade Linux

**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**

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| --- | --- |
| •Probability and Statistics | •Linear Algebra •Programming and Data Structures |

**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