# HIMANSHU GULLAIYA

#### ASPIRING DATA SCIENTIST

# **PROJECTS**

#### **Computer Vision Projects**

• Python Apps such as Air Mouse, Real-time Face Recognition, OCR, Object Tracking, Motion Detection, Emotion Recognition and Many More.

## Fraud Detector Using Hybrid Model

• Developed a Fraud Application Detector using Self Organising Maps (SOMs) & ANNs by doing segregation of Outlying Neurons.

## **NLP Projects**

• Implemented Text Embeddings on semantic Analysis, Speech Recognition Python App using API, Caption Generation, Research on Machine Translation.

## Self Made Artifical Neural Network Library

• Developed an A.N.N from Scratch implementing Actual Algorithms. Further Comparing it with Keras's Network, I got accuracies of 82.5 % & 85 % respectively on kaggle's Bank Employees churn Dataset.

## **Advanced Machine Learning Visualization**

- Comparison of various classification models such as Random Forests, SVMs, XGboost ANNs.
- Visualization of Live Data on Matplotlib, Tableau, Building Heat Maps etc.

## **Image Classification**

• Using CNN designed a 10 Classes Image Classifier & further Using Hyperparameter Tuning Obtained Maximum Possible Accuracy.

#### Game Bot using Deep Reinforcement Learning

• Using Image Processing & Deep Q-Learning with Policy gradients on Pytorch, designed bots of various OpenAI Gym environments.

## WORK EXPERIENCE

## **Product Developer at IEEE MSIT**

**Sept - Oct 2019** 

**Library Automation System (IOT)** 

- Developed a Scalable product to Automate College's Library's Day to Day tasks including Bio-metric Authentication on Entry, Daily Logs with SMS & EMAILs, Auto Book Issue & Return using RF-IDs, Anti-Theft System implemented on Raspberry Pi 3B and backend purely based on Python.
- Further Created a Cloud Database (Firebase) & a GUI Records Retrieval Application for Management in Python.

## **Machine Learning Research Intern**

July - August 2019

**IIIT Hyderabad** 

- Researched at Anusaaraka Lab
- Neural Machine Translation for English to Hindi Pair.

#### COURSES & CERTIFICATIONS

Udacity Intel Edge AI Program Coding Blocks - Machine Learning Coursera - Reinforcement Learning





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#### SUMMARY

Third Year CSE Under Grad with a good Exposure of AI & Data Science, out to solve real life problems with the power of AI. A good hand in Data Structures & Algorithms, Statistics & Mathematics and a Zeal to learn more.

#### EDUCATION

2017-2021

Maharaja Surajmal Institute of Technology, Delhi BTECH: Computer Science GPA: 8.8

SKILLSET

Python, C++, HTML 5.0, CSS

- DEVELOPMENT SKILLS Visualization Tools NLP Technology Algorithms (Keras, Pytorch, Tensorflow 2.0) (Un)Supervised Deep Learning Computer Vision Reinforcement Learning Raspberry Pi Firebase Photoshop
- COMPETITIVE CODING Active Problem Solver on Codechef & Leetcode
- TOOLS

Intel Edge VINO Toolkit, Google APIs, Jupyter notebook, Clion, pycharm, orange, AWS, Firebase, Github, Photoshop

#### CONTACT

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