MANPREET SINGH

DATA SCIENTIST

PROFILE

Extremely motivated to constantly develop my skills and grow professionally. I am confident in my ability to come up with interesting ideas for manipulating data for better analysis.

CERTIFICATIONS

DEEP LEARNING
Deeplearning.ai | Jan 2020 - Jun 2020

- Accomplished more then 95 percent score.
- Implemented projects from basics to production level in python
- Analyzed and processed complex data sets using advanced querying, visualization and analytics tools.
- Refined accuracy score of "Signs prediction" from 92% to 95% with optimized solution in Pytorch.
- Worked with Object detection and Localization models
- Familiar with YOLO, RCNN and SSD algorithms.
- Generated Jazz music with power of NLP and Sequence modeling

MACHINE LEARNING A-Z
Udemy

- Formalized data science into Predictive, Analytic and Modeling methods.
- Used Python and Spark to scrape, clean, and analyze large datasets.
- Compiled Neural networks with Clustering algorithms to cluster images from bulk and save in respective folder.
- Devised tags prediction for Stack overflow using tf-idf.
- Managed gamma to outperform heart disease prediction by 97% precision.

INTRODUCTION TO PYTORCH
Udacity

- Implemented complex algorithms using Pytorch.
- Used Pytorch and Flask to developed web-app for Melanoma Detection.
- Participated in various Kaggle competitions.
- Accomplished 87% F1-score on Face Recognition trained with Convolution networks and triplet loss.

COMPUTER VISION - OBJECT TRACKING WITH OPENCV AND PYTHON
Coursera | Jun 21 2020

- Designed project on Corner detection and object detection with opencv library with guided help.

TENSORFLOW SPECIALIZATION
Coursera | Jun 24 2020

- Implemented complex Deep learning algorithms using Tensorflow with help of keras API.
- Developed NLP, CV and Sequence models in tensorflow.

CONTACT

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REFERENCES

GITHUB
https://github.com/manpr
eet2000/

LINKEDIN
https://www.linkedin.com
/in/manpreet-singh-
901269157/

EDUCATION

GURU HARKRISHAN PUBLIC SCHOOL, NANAK PIAO

10th class | 2015 | 7.6
12th class | 2017 | 7.8

BACHELOR OF TECHNOLOGY (ECE)

Guru Tegh Bahadur Institute of Technology | 2017-Present | 8 (Current
CGPA)

EXPERIENCE

DATA SCIENCE INTERN
Bawas consulting service (US)

- As a Data Science intern my job is to find complex relation in
  text documents
- I used NLP and Machine Learning algorithms to generate
  features.

SR. DATA SCIENCE INTERN (DEEP LEARNING & COMPUTER VISION)
Vrishank Labs

- My area of work is to build deep neural architecture and
  create computer vision models.
- In this internship i have deployed models as well as worked
  under research topics.
- I am leading a group of 8 interns with computer vision stack.

MACHINE LEARNING INTERN
Alhpa Ai

- I am working in a team to produce insights from Legal
  documents.
- This project is purely AI based and apart from data science
  uses NLP as main skill.

WEB DEVELOPMENT
India Meteorological Department

- Scraped usefull information from other Government websites.
- Managed team with full stack development.
- Enhanced webpages by integrating PHP and SQL.
- Developed Authentication portal with admin access.

DATA STRUCTURES AND ALGORITHMS TRAINIE
PEPCODING

- Coded complex architectures and algorithms in JAVA
- Implemented Linked-List, Trees, Graphs, HashMap with
  optimization.
- Developed fundamental skills in JAVA programming
  language.

ARDUINO MICROCONTROLLER
Aedifico Tech Pvt. Ltd. | Jun 2018 - July 2018

- Designed solutions for real-time problem.
- Adapted C++ with Python language to interfere with micro-
  controller.
- Achieved lossyless connection with IOT.
- Developed Weather Station using modules such as ESP8266,
  PIR sensors , Ultrasonic sensors , LCD's , IR sensors and RTC.

PROJECTS

AI IN MEDICAL
https://github.com/manpreet2000/Medical-AI

- This project is an OPEN SOURCE initiative to bring deep learning community for development of Medical solutions.
- Yet it contains four deep learning models
  - brain tumor segmentation
  - pneumonia detection
  - risk models
  - cataract prediction
- This project is pure PYTORCH based and used FLASK for backend development.

PNEUMONIA DETECTION USING X-RAY
https://github.com/manpreet2000/Skin-cancer-detection

- IT is an AI based software which detect Pneumonia given X-Ray as input.
- This project has built on TENSORFLOW and have 80% precision.
- Webapp is created using FLask.

MELANOMA CANCER DETECTION
https://github.com/manpreet2000/Skin-cancer-detection

- It was kaggle competition to find melanoma cancer, which has unbalanced dataset.
- Transfer learning has been used and achieved best ROC score of 85%.
- I used FLASK to integrate model with webapp.

FACE RECOGNITION
https://github.com/manpreet2000/Deep-learning-with-opencv/tree/master/face_recoginition

- I used my own script implementation to generate faces
- open-cv python library has been used to recognize faces

BLINK DETECTION
https://github.com/manpreet2000/Deep-learning-with-opencv/tree/master/blink%20detector

- This script counts number of blinks by person intrecting with camera
- It can be integrated to find drowness detection

FACE CLUSTER
https://github.com/manpreet2000/Deep-learning-with-opencv/tree/master/blink%20detector

- Assume a folder containing so many pictures of 5 friends and we want to select pictures of respective person.
- This script automatically create folders with respective person on that, similar to google photos.

STACK-OVERFLOW TAGS PREDICTION

- TF-IDF has been used to get 89% F1 score for tags prediction.
- i used LOGISTIC REGRESSION with ovr.