KIRAN PARTE

Electronics & Telecommunication Engineer, B.E (2015-2018)

@ kiran.parte10@gmail.com github.com/kiran-parte +919967468497

EXPERIENCE

Embedded Python developer

Candor Solutions

Sept 2018 – Nov 2019 Mumbai, Maharashtra, India

- My role here was to to design and deploy various python based machine learning and computer vision models on different embedded platforms
- To work on different embedded platforms, To develop modules to support integration into multiple client systems

Machine Learning Trainer

NTech Global solutions

Jan 2019 – Present Mumbai, Maharashtra, India

- To teach python for machine learning and Data Science
- To train and undertake different hands on projects on machine learning and Data science

Designed a website for Support NGO

Support NGO

July 2018 – Sept 2018 Mumbai, Maharashtra, India

- While volunteering here, i designed a SEO optimized, visually stimulating dynamic website for the NGO

ACHIEVEMENTS

- Second prize at SRISHTI -2017, National Level Technical Project Exhibition and Competition for project SEARCh(Semi Autonomous River Cleaning Robot) held at SAINTGITS COLLEGE OF ENGINEERING, KOTTAYAM, KERALA
- First prize at EXPANSION-2016, Technical Project Exhibition held at VPM's POLYTECHNIC, THANE
- Second prize at VESRC 1.0, ROBOTICS EVENT held during PRAXIS-2017, inter-collegiate technical festival
- Student head at TINKERER's LAB, EXTC V.E.S.I.T.
- Executive head of Robotics Committee at PRAXIS-2016, inter-collegiate technical festival
- Conducted workshop on Arduino and basics of Embedded Systems under Tinkerer's Lab
- Conducted workshop on Linux, Python and OpenCV under VESIT Research Forum and Tinkerers lab
- Conducted a workshop on MATLAB and LabVIEW under IEEE, VESIT and Tinkerer's Lab, EXTC VESIT
- Felicitated by Swami Vivekanand Youth Inspiration award at Yugam-2017 organised by Akhil Bhartiya Vidyarthi Parishad

EDUCATION

B.E., Electronics & Telecommunication Engineering

Vivekanand Education Society's Institute of Technology

July 2018 Mumbai

Diploma, Electronics Engineering

Government Polytechnic

March 2015 Mumbai

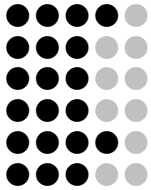
Secondary School Certificate

Parle Tilak Vidyalaya Eng. Med. School

March 2012 Mumbai

SKILLS

Python
C, C++
Django, HTML
SQL, NoSQL
Linux (Ubuntu)
PHP, Javascript



PROJECTS

SEARCh - Semi Autonomous River Cleaning Robot

- The objective of this project is to clean water bodies by collecting the garbage floating on the surface .
- The Mechanical structure consists of a conveyor belt for collecting the garbage and paddle-wheel mechanism for propulsion. It uses pvc pipes to float on water surface
- IOT is used for manual control and image processing is used for autonomous navigation and garbage detection on water surface

Fraud Detection in credit card transactions

- For this project i have used the 'Credit card fraud detection' dataset from kaggle
- As the dataset is heavily imbalanced i have used various Oversampling and Undersampling techniques to balance the classes
- I fitted various machine learning models on the data, and achieved a very high accuracy of 98% with a high precision and recall value

PROJECTS

Personalized Cancer Diagnosis

- For this project i have used the 'Personalized Medicine: Redefining Cancer Treatment' dataset from kaggle
- This is a multiclass classification problem where predictions are to be made from 9 different genetic mutations
- Here i have used various techniques to vectorize text data and and various feature engineering techniques to achieve a test log loss of less than 1

Real Time Facial Expression Recognition

- For this project i have used the 'Facial Expression Recognition, 2013' dataset from kaggle
- Here i have used a CNN model to train on the dataset and achieve a high accuracy
- For face recognition i have used opencv's deep neural network module and the CNN model weights are used to detect facial expressions accurately

DenseNet-CNN on CIFAR-10

- For this project i have used the 'CIFAR-10 image dataset'
- Here i have used a Densenet CNN model to train on the cifar-10 image dataset and tuned the parameters accordingly to achieve a high test accuracy of 90
- For this project i have used various image data augmentation techniques to improve the model's performance

LSTM on Donors Choose Dataset

- For this project i have used the 'Donors choose' dataset from kaggle
- Here i have built three different LSTM models with Embedding layers and used AUC as a performance metric

Quora question pair similarity

- For this project i have used the 'Quora question pairs' dataset from kaggle
- The goal of this project is to detect duplicate questions
- Here i have used various text vectorization and featurization techniques to reduce the log loss to a value less than 1

Amazon Fine Food Reviews

- For this project i have used the 'Amazon fine food reviews' dataset from kaggle
- Here i have used various text vectorization techniques and plotted wordcloud. I have fitted different machine learning models on the dataset
- I have also performed feature engineering and sentiment analysis on the text to classify positive and negative reviews

Churn rate Prediction

- For this project i have used the 'Telco customer churn' dataset from kaggle
- The objective here is to predict whether a customer will leave the company or no based on different factors
- Here i have performed a rigourous data analysis and fitted various machine learning models to attain a high accuracy score

OCR and Text Recognition

- For this project i have used opencv and tesseract-4 which supports deep learning based OCR
- Here opencv detects text data in images and extracts text ROIs then Tesseract performs OCR on the result
- For further improvements i am testing results on Google Vision api and microsoft Vision api

Social Distancing Prediction

- For this project i have used Yolo pretrained model to detect people in the dataset then compute pairwise distance between them and then check if two people are N pixels apart
- I have given a pedestrian walking video as input to the model and got pretty good results
- For more accurate results i am working on mapping the pixels to measurable units by tuning the camera parameters

Detecting Covid-19 in X-ray images with Deep learning

- The COVID-19 X-ray image dataset i have used for this project was is curated by Dr. Joseph Cohen, a postdoctoral fellow at the University of Montreal.
- Here i have concatenated two different networks to construct the final model
- I have used VGGNet on the X-ray image dataset and encoded text, categorical and numerical data using different text vectorization, tokenization and scaling techniques

PUBLICATIONS

Sixth Sense - A Wearable Gestural Interface
International Journal of Advanced Research in Computer and Communication Engineering, April'2016

Sixth Sense - An Air Mouse
International Journal of Advanced Research in Computer and Communication Engineering, June'2016

ARTICLES

- **Medium** — "Understanding Performance metrics for Machine Learning Algorithms" by Kiran Parte, July. 31, 2020.
- **The Hindu** - "Chembur students create trash buster" by Hariprasad Radhakrishnan March. 26. 2017.

STRENGTHS

Creative & Hard-working | Persuasive | Pragmatic problem solver | Optimistic | Motivator & Leader | Inquisitive