

PERSONAL DETAILS

Prateek Ramesh Karkera | Date of Birth: 15<sup>th</sup> Jan 2001 | Male | Unmarried

Languages known: English, Marathi, Hindi | Hobbies: Learning, Swimming, Gym, Sports

SKILLS

Python | Scikit-Learn | Tensorflow | Keras | Pytorch | Flask | Streamlit | Gradio

Pandas | Numpy | Excel | PowerBI | Matplotlib | Seaborn | SQL | Git | NodeJS

Generative AI Models | Large Language Models (LLMs) | Transformer Models | GANs

Exploratory Data Analysis | Feature Engineering | Data Modelling | Hyperparameter Tuning

Customer Behaviour | Churn | Neural Networks | Sentiment Analysis | Classification

EDUCATION

Master of Science (Artificial Intelligence)	CGPI 9.52	2021-23
Bachelor of Science (Information Technology)	CGPI 9.55	2018-21
XII HSC (Science)	Score 77.38%	2018
X SSC Board	Score 90.20%	2016

RESEARCH

Published Technical Research Paper on “Optimization Techniques of Quantum Neural Network for Image Classification” for Springer Journal at ISDA 2023, International Conference on Intelligent Systems Design and Applications.











Published Research Paper in IJIRT on “Quantum Techniques for Particle Swarm Optimization”

OTHER ACHIEVEMENTS

Placed 5<sup>th</sup> in Mumbai Code Execution Championship 2019 for C Programming

Hackerrank Certifications | Python (Basics) | SQL (Basics) | Problem Solving (Basics)

## ----- PROJECTS -----

Name Of The Project	Skills & Tools Used
 Quantum Neural Network based Web App for Galaxy Classification <a href="https://quantumgalaxy.onrender.com/">https://quantumgalaxy.onrender.com/</a>	Quantum Neural Networks, Flask, Pytorch, Qiskit, Optimization, Image Classification, Deep Learning,
 AI Virtual Assistant with User Interface <a href="https://youtu.be/i-t_OG4i8Kw">https://youtu.be/i-t_OG4i8Kw</a>	Python, PyQt5, Speech to Text, Preprocessing and Stopword Removal, Working with APIs
 VITGPT2 based Image Captioning Model	Streamlit, VisionEncoderDecoderModel, ViTFeatureExtractor, Tokenization, Image Captioning
 DCGANs Cartoon Image Generator	Gradio, Deep Convolutional Generative Adversarial Networks (DCGANs), Keras, Tensorflow, Cartoon_20000 Dataset, CNN, Deep Learning
 End-to-End Depression Prediction Web App <a href="https://depressionprediction.onrender.com/">https://depressionprediction.onrender.com/</a>	Flask, Collection for PHQ9 Data, Selective Modelling, Ensemble Model, Gradient Boosting, SVM, Decision Trees, Random Forest, Hyperparameter Tuning, GridSearchCV
 Vision Transformers for Classification	Vision Transformers, Self-Attention, Multihead Attention Model, Image Recognition & Classification, MNIST
 NLP Sentence BERT Recommendations	Sentence-BERT, Sentence Embedding, Sentence Transformer, Semantic Textual Similarity, Cosine Similarity Recommendations
 Thyroid Detection Web App <a href="https://thyroiddetection.onrender.com/">https://thyroiddetection.onrender.com/</a>	Flask, Exploratory Data Analysis (EDA), SMOTE, Feature Modelling, Random Forest, Sequential Feature Selection, Hyperparameter Tuning, RandomSearchCV & GridSearchCV
 German to English Translation	Streamlit, Neural Machine Translation, Seq2SeqTransformer, Tokenization, Masking from future tokens, Positional Encoding, Multi30k EngGer Dataset
 Sentiment Analysis and Customer Churn Behaviour Analysis on British Airways Data	Web Scraping, Sentiment Analysis using VADER, Parts of Speech Tagging, Data Modelling, XGB Classifier, Customer Churn Analysis
 Customer Buying Behaviour on Cognizant Sales Data	Exploratory Data Analysis (EDA), Data Modelling, Random Forest Regressor Model