

A result-oriented professional with excellence in implementing quality mechanisms to deliver desired output targeting senior-level assignments in Data Science with an organization of high repute in Mumbai, Pune, Ahmedabad or Hyderabad

(Open for Immediate Joining)

#### **CONTACT ME AT**

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### **CORE COMPETENCIES**

- Data Science
- Machine Learning

Learning-and-Al

- Data Regression Analyses
- NLP/Advance NLP
- Data Mining
- Data Preprocessing
- Data Cleansing, Modeling
- Reinforcement Learning
- Predictive Modelling
- Deep Learning using CNN, RNN, LSTM, BERT and Transformer
- Stakeholder Management

# RADHAKRISHNA NAIK

# DATA SCIENTIST PROFILE SUMMARY

- A driven Data Science & Analytics professional offering nearly 5 years of rich experience in data mining & analytics, extracting & predicting quality information, making statistical inferences utilizing data
- Project Management skills right from the conceptualization, and visualization to technology mapping; delivered various highly profitable models yielding consistent revenue
- Identified, developed and implemented appropriate statistical techniques, algorithms, and ML Models to create new, scalable solutions that resolved business challenges
- Used the latest data and visualization tools and software to provide the business with insights on customers and make recommendations for improvement
- Leveraged knowledge of Statistics, Advanced NLP and machine learning techniques to create scalable solutions for business problems
- Hands-on experience in common data science toolkits, such as NumPy, Pandas, Matplotlib, Seaborn, StatModel, NLTK, Spacy, Gensim, TensorFlow, Keras, Spacy, psycopg2, Luigi, Openai, Wandb, env, Switwiz, AutoTS, Scikitlearn, SciPy), and Regex
- Gained knowledge in advanced analytical practices such as predictive analysis, attribution modelling and customer profiling
- Analyzed large amounts of raw information to find patterns that helped attain excellence
- Acted as Research Supervisor in CSE branch in the field of Machine Learning and Al for Dr. B.A.M.
   University Aurangabad, Uttarakhand Technical University Dehradun, Amity University Jaipur and MGM University Aurangabad
- Received thrice Faculty Excellence Award from Infosys Ltd. India for providing solutions to the Battery Management System of Infosys Data Centers
- Appreciated with Distinguished Alumni Award by NIELIT Aurangabad formerly CEDTI Aurangabad, in 2018
- Got Appreciation Letter from Commissioner of Police, Aurangabad for the successful deployment of project" criminal data depository and facial recognition of chain snackers using deep learning"
- Published papers in 30 international journals and presented papers in 11 international conferences

## **WORK EXPERIENCE**

February 2018 – Till Date with Arrow Bench Solutions Pvt. Ltd., Bengaluru

#### **Growth Path**

February 2018 – March 2022 as Data Science Consultant March 2022 – Till Date as Senior Data Scientist

### **Key Result Areas:**

- Proactively assisting in the development & management of data-driven projects for attaining excellence
- Leading the development of mathematical models and applications to present the information to the stakeholders
- Evaluating data findings to communicate findings in a clear, structured manner; developing cordial relations with stakeholders and rendering guidance Directing full development cycle of planning, analysis, design, development, testing, and implementation using data mining and data analysis tools
- Processing, cleansing, and verifying the integrity of data used for analysis
- Leveraging Regression Techniques like Linear Regression, Multiple Linear Regression, Logistic Regression, Multinomial Regression, Lasso and Ridge Regression, SVM
- Undertaking preprocessing of structured and unstructured data
- Using Machine Learning Classifier Techniques: Naïve Bayes, K-NN, Decision Tree, Ensemble Techniques
- Analyzing large amounts of information to discover trends and patterns; using the same to develop predictive models and machine-learning algorithms
- Developing rich, interactive, visually striking graphics and data visualizations of large amounts of data that facilitate the presentation of data
- Presenting information using data visualization techniques

#### **EDUCATION**

- Ph.D. in Real-Time Systems and Machine Learning from S.G.G.S. Nanded, Dr. S.R.T. University, Nanded in August 2012
- M.Tech. in Electronics System
   Design (Software DESIGN
   Major) from CEDTI Aurangabad,
   Dr. B.A.M.
   University Aurangabad in July
   2004
- B.E. Electronics and Telecommunication from Govt. COE Aurangabad in July 1997

#### **CERTIFICATION**

Infosys Certified Soft Skill
 Trainer

#### **SOFT SKILLS**

- Communication
- Analytical
- Planning
- Numerical Competence
- Team oriented

# PERSONAL DETAILS

- Date of Birth: 22<sup>nd</sup> May 1974
- Languages Known: English, Hindi & Marathi
- Address: Umagar, Near Gopal Cultural Hall, Usmanpura, Aurangabad - 431405

- Undertaking data collection, preprocessing and analysis
- Building models to address business problems
- Visualizing and reports data findings to stakeholders utilizing various visual formats; compiles and presents complex information for audiences at varying levels of technical understanding

March 2021 – December 2021 with MGM University Aurangabad as ADJ. Professor & Dean R&D

### **Key Result Areas:**

- Managed the Design of various policies such as R&D, Information Security for the University
- Designed and developed learning resource materials & research environment
- Researched student assessment & evaluation including Pre-PhD, RAC, RRC work of the university
- Provided R&D support and consultancy services to Industry and other user agencies
- Associated with projects sponsored by e-global doctors. LLP California USA

#### PREVIOUS EXPERIENCE

July 2011 – March 2021, MIT, Aurangabad as Asso. Professor, Professor, HoD in (CSE department) and Vice-Principal

August 2005 – June 2011, Sanjivani COE Kopargaon as Asst. Professor (IT Department)

January 1998 – July 2005, Pravara COE Pravara Nagar, Loni as Asst. Professor in (ETC & IT Department)

#### TECHNICAL SKILLS

- Data Pre-processing, Data Visualization Plots, Data Mining-K-Means, Hierarchical Clustering, PCA, SVD, Association Rules and Recommendation Engine, Network Analytics, Text Mining, NLP
- Probability Distributions, CLT, Confidence Interval, Hypothesis Testing
- Survival Analytics, Time Series Forecasting
- AI Technologies: ANN, Deep Learning, CNN Open CV, Computer Vision and Image Processing
- Advanced NLP using RNN, LSTM, GRU, Sequence to Sequence Models/ Transformers GPT-2, GPT-3,BERT, Chat Bot using RASA and BERT
- Reinforcement Learning
- **Deployment:** Flask, FastAPI, AWS Sage Makers
- Database connectivity using python
- Development Tools: Jupyter Notebook, Spyder, Google-Co-lab
- Auto EDA and Auto ML
- Visualization Tools: Tableau
- Programming Languages: C, C++, Python, Java, JDBC Servlets, RMI, Corba HTML, CSS, PHP
- Others: IoT, Web Development, OpenCV
- Embedded System: 8051, PIC, Arduino, Raspberry ARM, , RTLinux, Magento, Event Studio

# **CHECK ANNEXURE FOR PROJECTS EXECUTED**

#### **ANNEXURE**

#### **PROJECTS**

1. Identifying trip frauds of drivers by plotting google map of individual driver and identity the dead KM

Business Objective: To reduce the number of fraud trips per day basis of each driver and increase the revenue of the business

Maximize: Revenue of the business

Minimize: Dead KMs run per cab and stop malpractices

**Data Preprocessing**: merging of various tables, dropping the unnecessary columns, translating latitude and longitude to address, separate out desired addresses from addresses of various patterns using NLP technics. Creating multiple excel sheets so as to map google map for each driver.

Data Pipeline built: Data pipeline is designed using psycopg and PostgreSQL

Impact of project: This is daily basis activity, which will reduce the malpractices and improve the overall revenue of the company

2. Prediction of potential requests from each location in Mumbai of taxi requests using time series analysis

Business Objective: To predict potential requests at various locations in Mumbai based on past data using time series analysis

Maximize: Business revenue

Data Preprocessing: Merging of various tables and extracting location wise requests. EDA and Trend, seasonality analysis, test stationarity using Dicky-Fuller test Models

Built: AutoTS, base model and ARIMA, time series prediction using LSTM

Model Deployment: Flask

Impact of project: Earlier cab drivers were randomly selecting locations, so there were no guidelines to cab drivers. Revenue has been improved to 30% in

pilot model

3.Data acquisition using text mining and IoT for prediction of water using machine learning for open farming and closed farming Applied complete CRISP-ML (Q) Methodology

Business Objective: Beautiful Soup package is used to extract data, through various portals and fine-tune with real data received through IoT

Maximize: Accuracy of water required prediction

Minimize: Unexplained variation.

Data Preprocessing: EDA and Stepwise regression for feature selection, to check autocorrelation, Darbin Watson statistics, to check multicollinearity VIF

Data Pipeline built: Data pipeline is designed using psycopg and MYSQL

Impact of project: Water utilization has been improved 20% in open farming and 25% in closed farming

4. Prediction of sale of health care consultancy services using time series analysis

Applied complete CRISP-ML(Q) Methodology

Business Objective: To Predict the daily sales of consultancy services available on the healthcare portal www.eglobaldoctors.com using time series analysis

Maximize: Enhance marketing strategies and improve decision-making of sales managers.

Data Preprocessing: Data Acquisition through data server and Auto EDA is done using Sweetvitz, Trend and seasonality analysis, test stationarity using Dicky-

Fuller test Models

Built: AutoTS, base model and ARIMA

Model Deployment: Flask

Impact of project: Sale of various services has been improved by 55%

5. Development of tool to identify emotions level for psychological counseling

Business Objective: To identify the emotional levels of patients so as to provide exact counseling to patients using biological signals and vision based

technique

Maximize: Enhance counseling strategies and improve patient treatment methodology

Data Acquisition through Emotive EPOC device for BCI data acquisition, Data Preprocessing: FAST Independent component analysis (ICA) was performed on

EEG sample data to remove artifact, Short Time Fourier Transform (STFT), Discrete Cosine Transform

(DCT) and discrete wavelet transform (DWT) was utilized towards the computation of features Feature Normalization: The Linear Discriminant Analysis was utilized towards reducing the feature space

Model built: k-Nearest Neighbor, Random forest, Naïve Bias classifier

Model deployment: Flask

Impact of the project: Psychologists are getting correct information about the patient before starting the counseling

Prediction of water required using multiple correlation regression analysis for open farm, garden and closed farm Applied complete CRISP-ML(Q) Methodology

Business Objective: To predict exact water required for given conditions of environment, soil and plant state using ETO calculation

Maximize: Accuracy of water required prediction

Minimize: Unexplained variation. Data Acquisition and EDA

Data Preprocessing: Step wise regression for feature selection, to check autocorrelation Darbin Watson statistics, to check multicollinearity VIF

Model built: Muti linear Regression Analysis (Python)

Model deployment: Flask API

Impact of project: Clients are getting correct estimation of water required for irrigation of particular crop. There is slight 10 %

variation in predicted and actual water required

"Water" Use it wisely WSN- Irrigation System (WSN-IS) for Smart Home Garden" Recent Patents on Engineering, Volume 13, Number 2, 2019, pp. 123-130(8). "Regression Analysis for Evaluation of Evapotranspiration for Agriculture Water Requirement" International Journal of Future Generation Communication and Networking, Web of Science Journal

Design of Intelligent Real-time scheduler for Greenhouse Monitoring Systems (Applied complete CRISP-ML(Q) Methodology)

Business Objective: To design a real-time scheduling algorithm which will take decisions using Machine Learning

Maximize: Scheduling intelligence

Minimize: latency.

Data Acquisition using IoT EDA: like Stepwise regression and LINE properties tests have been carried out

Data Preprocessing: Handling missing values, outlier treatment and feature engineering Model built: Muti-Linear Regression Analysis

(Python) Model deployment: in RTLinux

Impact of project: Clients are getting the desired microclimate very effectively.

https://www.jardcs.org/backissues/abstract.php?archiveid=3331(SCOPUS Indexed)