

# RATISH NAIR

## DATA SCIENTIST

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### CAREER OBJECTIVE

As a lifelong learner and teacher, the intrinsic complexity coming from the world around me has always intrigued me. Present-day Data Science has come far and is now intimately linked to the study of Artificial Intelligence (AI). My objective as a Data Scientist is to recognize patterns and apply these to develop precursor systems to AI. My work with Whitehat Jr. allowed me to build curriculums centered on Python programming. Beyond this, Python allowed me to analyze the company's online presence, thereby providing direction to its evolving business model.

### SKILLS

**Advanced Python, SQL, Data Analysis, Machine Learning, Predictive Modeling, Sentiment Analysis, Data Visualization, NLP, Data Mining**

### EXPERIENCE

#### WHITEHAT JR. | DATA SCIENTIST

**Aug. 2020-Mar. 2021**

- Built a curriculum upon which coding projects, some of which focused on handling end-user concerns, were based on. Projects are as follows:

##### **1. Twitter Analysis**

- Used Twitter API to track all tweets relating to the company
- Performed sentiment analysis after collecting data
- Analyzed data by converting them using NLP
- Recognized patterns to arrive at the public's perception on the company

##### **2. Comment Analysis**

- Determined major product issues via monitoring of comments
- Performed the abovementioned data collection and analysis

## **EXPERIENCE (CONTINUED)**

- 3. Stock Market Prediction**
  - Culled stock price data from Yahoo Finance repository
  - Used DNN and Random Forest Classifier to predict stock prices (leaned towards using DNN as this resulted in a more accurate model)
- 4. Covid Prediction**
  - Utilized prophet and time series to predict spread rate of Covid in Japan
  - Juxtaposed model to real-time graphs
  - Applied ANN to improve predictions
- 5. Growth Prediction**
  - Applied statistics to build a model that could predict the next value
  - Applied predicted value to the resulting value from an equation
  - Simplistic and straightforward modelling
- 6. IPL Prediction/ World Cup Prediction**
  - Predicted cricket team's probability of winning a match using historical match results and formation
  - Used random forest classifier
  - Verification of predicted data came at 98% as compared with real-world data
- 7. Traffic Analysis**
  - Predicted average wait time in a given city
  - Used linear regression, K Means Cluster and Regression Model
  - Visualized data through folium heatmap, matplotlib and seaborn
- 8. Solar Radiation Prediction**
  - Modeled solar radiation levels in a given year
  - Utilized Neural Networks, Decision Tree, Random Forest Regressor, XG-Boost, Bayesian Theorem and SVM
- 9. Eclipse Prediction**
  - Used historical data to predict the next solar and lunar eclipse event
  - Used XG-Boost and Random Forest Regressor
  - Resulted in 10 future predictions which were verified using available data
- 10. Ozone Layer Prediction**
  - Used data to predict ozone layer thickness
  - Used DNN, KNN, SVM XG-Boost and Random Forest Regressor (DNN resulted in highest accuracy)
- 11. Hepatitis Prediction**
  - Used available hepatitis data and correlated the likelihood of acquiring hepatitis along with other factors
  - Used Random Forest Regressor, SVM, KNN and Logistic Regression

**EXPERIENCE  
(CONTINUED)**

**SECRET KITCHEN | GENERAL MANAGER**

**Dec. 2019-Mar. 2020**

- Jumpstarted the restaurant and simultaneously managed five outlets to meet the highest quality standards
- Served as a focal person in managing human resources
- Planned the menu and monitored raw materials to be used
- Built a reliable data repository and performed data analysis to come up with a feasible and profitable business model
- Created marketing initiatives to widen customer reach

**MAKEBOT ROBOTICS | ADVISOR**

**Apr. 2019-Nov. 2019**

- Taught basics and modification of M-Bots in preparation for the Makebot Robotics Challenge (China)
- Developed a software upon which robots were linked to perform tasks
- Developed Data Science curriculum based on Python
- Created projects such as MNSIT Fashion, handwriting detection and facial recognition (using OpenCV)

**STAR CLASSES | ASSISTANT TEACHER**

**Jun. 2007-Present**

- Specialized in teaching Math, Physics, Chemistry and Biology
- Guided grade 8-12 students

**EDUCATION**

**Bachelors in Engineering Mechatronics**

**Vishweshwaraya University**

**Sep 2012-2018**

- Focus on Mechanical, Electrical, Electronics and Programming
- Built land mine detection bot with focus on scanning, detection and placing the mine in the bot

**HSC-CSC**

**2009-2011**

- Studied in Science Stream with a focus on PCMB

**SSC-St. Xavier's High School**

**1997-2009**