# **Dhritiman Nandi**

## Manager Analytics

Astute problem solver with data-driven and technologyfocused approach. Communicates clearly with stakeholders and builds consensus around well-founded models. Talented in coming up with feasible solutions in a fast paced environments. Possess the advantage of vast experience in the data domain (both engineering and analytics).

### Contact

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## **Skills**

Machine Learning	Excellent
Reinforcement Learning	Very Good
Deep Learning	Very Good
R	Excellent
Python	Excellent
SQL	Excellent
GCP	Very Good
AWS	Very Good
Shell Scripting	Excellent
GIS	Very Good

## Work History

### 2023/02 - Senior Associate - Analytics

Dun & Bradstreet, Mumbai

- Developing in-house tech solutions as part of country insight group.
- Developing MDA model for automating scores for variou entities
- Developing model to predict various macro economic variables
- Developing satellite based solutions to assess economic activities
- Reduced dependencies on manual run for weekly and monthly jobs by automating python scripts
- Working on large language model for alert and notifications on relevant news articles

## 2021/11 -2023/02

## **Manager Analytics**

RPG Enterprises, Mumbai

Project: HML

- Decide on algorithms to build models for shoot development and pest prediction/detection based on weather and GIS data. The model based approach estimates yield improvement by 130%
- Scout different service providers for satellite images and weather data to choose one based on cost and services offered
- Requirement gathering and building solutions to tackle various problems that plague the century old practices at tea plantations
- Come up with solutions for cloud based data pipeline architecture

## 2019/09 – 2021/11

#### **Data Scientist II**

General Mills , Mumbai

**Project:** Research New Algorithm

- Come up with LSTM model and fitment of the same as a replacement of the existing approaches. The MAPE was improved from 70% to 92%
- Develop and deliver content in the space of machine learning for analytic capabilities development
- Check feasibility of algorithms like Q-learning and SARSA as a replacement of the OR based approaches for the supply chain team

#### **Project:** Finance Transformation

- Come up with a machine learning model to predict financial indicators based on external factors only. The monthly model had MAPE around 84%
- Assess the effectiveness of the external data source used in the project
- Generate monthly report and explain it to the finance team

#### **Project:** C&F Harmonization

- Come up with a machine learning model to harmonize text based customer data from various sources about various entities
- Assess various record linkage algorithms to come up with the best fit. The accuracy achieved was 95%

## 2019/01 -2019/09

#### **Senior Data Scientist**

Circle of Life Healthcare Pvt. Ltd., New Delhi

#### Project: ZEVAC

- To develop a product based on clinical data available at a hospital that can suggest the proper anti-biotic for a patient based on various attributes of the person and the symptoms
- Come up with a strategy on what model to use based on the data and the inputs from the SMEs
- Planned and executed go-live as the PoC for the clients
- Come up with automated testing strategy of the data science codes
- Come up with a testing strategy for the data science module and the final product
- Come up with a set of best practices for the coding and ensure the same is enforced
- Come up with a strategy for the data extraction and handling
- Looking after the patenting process of the product
- Manage the team of data scientists and do proper resource allocation

## 2013/05 -2016/08

## **Senior Software Engineer**

CGI, Bengaluru

**Project:** Shell Horizon H3 **Client:** Royal Dutch Shell

- Examine and troubleshoot problems as logged in by the service desk to ensure smooth operation of the application
- To come up with fraud detection model to handle large volume of fraudulent transactions
- Monitor different components of the application and database
- Proactive tuning of the database to bring down the response time
- Maintained information security of the transaction data at all times
- Liaise with the Defect Management Team to take care of any defect that has been logged in the system
- Work closely with the testing team the effectiveness of the solutions provided by the Application vendor to include in the next release
- Taking care of the deployment process for bug fixes, improvements, and go live for major OUs for the application
- Taking part in creating and improving support plan for the application

## 2008/12 -2013/04

#### **Associate**

Cognizant, Pune

- Worked on various data migration projects for clients like GSK and JPMC
- Worked as database developer and administrator for different requirements
- Brought down migration completion timeline by 80%
- Solve issues with special characters in clinical data while migrating to a different database

## **Education**

2016-07 -2018-07

### M.Tech: QROR

Indian Statistical Institute - Kolkata

M.Tech in Quality, Reliability & Operations Research, a two year full time academic program, the first of its kind in the country we introduced at Indian Statistical Institute in 1989. The program is intended to develop statistical analysts with adequate theoretical practical exposure in Statistical and Mathematical Modeling, Operations Research, Optimization, Business analytics, Database Management system, Statistical Quality Control & Reliability. Students pursuing this course are either Masters in Statistics, Mathematics or Engineering graduates.

2004-07 - B.E: Electrical Engineering

**2008-07** *IIEST - Shibpur* 

## **Certifications**

**2011-12** Oracle Certified Professional in Oracle 11g on the PL/SQL

Track.

2019-05 Human Research (Curriculum Group) Data or Specimens Only

Research

## **Interests**

· GIS based solutions

Agritech

• Demand Estimation

Econometrics

OR

Data Visualization

Cloud data architecture

## **Internships**

Organization Name: ABInBev

**Title:** Implementation of BLP methodology in Beer Market **Business Problem:** The challenge was to do an empirical demand estimation at brand level for a market where only aggregated sales data was available.

Approach: We came up with a latent variable (utility from a brand at a market for a consumer) model and estimated the market share for a set of coefficients. Then we estimated the market share and calculated the difference with the market share derived from the data. Then we modeled it as an non-linear minimization problem and used GMM to solve the same with iterations until the difference reached a pre-defined tolerance value. We also checked gradient descent algorithm as another approach to solve the minimization problem.

Algorithms/Techniques: GMM, Gradient Descent

algorithm, 2SLS regression, IV model.

Duration: Jan 2018-Jun 2018

Organization Name: IL&FS Education and Technology

Services Limited.

Title: Investment sensitization using statistical data

analysis.

**Business Problem:** The investors of the organization were interested to know about how to draw statistical inference on whether company's presence is having any impact in human life in comparison to the respective district's same parameters as benchmark at a reasonably small geography (Pin code level in this case).

Approach: We first came up with a metric to measure the socio-economic condition for an individual and an area (at the pincode level). Then test on population proportion was used to test the hypothesis whether the value of the measure of socio economic condition is higher than the district level mean. This method was chosen after careful consideration of other tests as well as non-parametric methods. The sampling distribution was found to follow normal distribution which was in line with using of proportionality test.

**Algorithms/Techniques:** Proportionality test, MLR.

Duration: May 2017-Jul 2017