# Rahul Nair

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**EDUCATION** 

2019 - 2021 ILLINOIS INSTITUTE OF TECHNOLOGY

Chicago, IL

Master's in Science : Data Science

GPA:- 3.55

2015 - 2019 UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

Dehradun, Uttarakhand

Bachelor of Technology: Computer Science GPA:- 3.47

**SKILLS** 

Languages: Python, R, Scala, Java, SQL, C, C++, Pyspark

Databases: MapReduce, MongoDB, Pig, Hive, Cassandra, MySQL, PostgreSQL, Neo4j, BigQuery

Tools: Google Analytics, FLASK, Microsoft Azure, AWS, Docker, OpenCV, TensorFlow, GitHub, Tableau, DJANGO

#### WORK EXPERIENCE

#### 2020 - 2020 ILLINOIS INSTITUTE OF TECHNOLOGY

Chicago, IL

#### Research Assistant

- Examined Chicago Crime Data provided by Chicago Justice Project from 1996 2020.
- Structured the data and performed an exhaustive data analysis leveraging python to find out various patterns.
- Programmed a predictive model with a user-interface for user friendliness.

#### 2018 - 2019 **EPIC MINDS IT PVT. LTD.**

Bengaluru, Karnataka

#### Machine Learning Intern

- Built an image classification model using python to predict the disease which the plant has with an accuracy of 86%.
- Utilized Google Inception v3 model for training along with DJANGO and FLASK to integrate the model with an interface.
- Implemented an end-to end Plant Disease Detector to detects diseases in plants.

#### **PROJECTS**

# 2020 – 2020 CLUSTERING AND REGRESSION ANALYSIS OF GERRYMANDERING

Chicago, IL

- Performed an exploratory data analysis on 2012 and 2018 plans to find out the issues in 2012 redistricting plan of PA.
- Implemented weighted k-means to develop a new redistricting plan for PA making sure the population distribution remains proportionate across districts. This new plan has improved the fairness by about 60%.
- Experimented with various regression analysis techniques to find which factors influence elections.

### 2020 - 2020 YELP RECOMMENDER SYSTEM FOR RESTAURANTS

Chicago, IL

- Developed an end-to-end recommender system leveraging python to suggest restaurants to users utilizing hybrid matrix factorization method with an accuracy of 97%.
- Analyzed other algorithms such as content-based, collaborative, Approximate nearest neighbor, etc. and tuned hyperparameters using Bayesian optimizatio'.
- Deployed final model as a web-app employing Angular JS and Flask.

#### 2019 - 2019 STACKOVERFLOW DATA ANALYSIS

Chicago, IL

- Ran queries on Hive and Pig on dataset to perform some exhaustive data analysis.
- Created a Tag Predictor operating Pyspark to anticipate tags for any StackOverflow post with an accuracy of 83%.
- Extracted Stackoverflow Data operating Bigquery using SQL queries.

## 2018 - 2018 FACIAL EXPRESSION IDENTIFIER

Dehradun, Uttarakhand

- Devised an image classification model to predict facial expressions using images taken live by a webcam with an
  accuracy of 84%.
- Used Google Inception v3 model for training along with DJANGO and FLASK to integrate prepared model with an interface.
- Launched a web-app Facial Expression Identifier which predicts facial expression of a person.

#### EXTRACURRICULAR

- Public Relations(Smart Analyzers):- Organized various hackathons and coding workshops.
- Soch (NGO):- Lead an initiative to provide primary education to children in rural areas.
- Discipline Committee Member:- Conducting various cultural programs and maintained decorum during any event.