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Top Skills

Big Data Analytics
Machine Learning
Statistical Data Analysis

Languages

Malayalam
Tamil
English

Certifications

IBM Recognized Speaker/ Presenter
IBM Intellectual Capital/ Intellectual Property Creator
IBM Recognized Teacher/ Educator
Enterprise Design Thinking Practitioner
IBM Mentor

Publications

"Inheritance of handwriting features"
"Data Science as a Service on cloud platform"
Reinforcement Learning - The Business Use-cases
"Hybrid cloud for educational sector"
"Era of cloud computing - a new insight to hybrid cloud"

Patents

Machine Trading using Reinforcement Learning

Aishwarya Srinivasan

Data Scientist-IBM DS & AI Elite || 50k+ LinkedIn Followers || Unicorn in Data Science ||WiDS Ambassador || MS Data Science - Columbia University
New York

Summary

Scikit-Learn Contributor || Deep Learning Researcher || Data Science || Statistical Machine Learning || Reinforcement Learning || Business Intelligence || Algorithm Optimization || AI in Finance

Experience

IBM
Data Scientist - Data Science & AI Elite Team
February 2019 - Present (1 year 7 months)
Greater New York City Area

Goldman Sachs
Data Scientist (Capstone)
September 2018 - December 2018 (4 months)
Greater New York City Area

Capstone project via Columbia University (With Jared Peterson @ Goldman Sachs)

Developing a model for finding the Similarity Indexes of various Medical Institutes based on their clinical trial data using the open source AACT Database. (Text analytics and exploring alternative data)

IBM Data Science and Advanced Analytics
Data Science and Machine Learning Intern
June 2018 - December 2018 (7 months)
Greater New York City Area

Developing Reinforcement Learning Model for Long & Short Trading and Portfolio Management.

Columbia University Irving Medical Center
Graduate Research Assistant
June 2018 - December 2018 (7 months)
Greater New York City Area

Working on patient's EHR and time series data of heart rate, blood pressure and patient's health response during the operation. The goal is to develop a forecasting model to detect the seizure of patients; using multi-level model. The time series data would be analyzed using dynamic time warping methods due to varying lengths and unequal intervals of the data.

Data Science Institute, Columbia University
1 year

Scikit Learn Contributor
April 2018 - December 2018 (9 months)
Greater New York City Area

Graduate Research Assistant
January 2018 - May 2018 (5 months)
Greater New York City Area

Analysis and extension of scikit- learn (Guide : Prof. Andreas Mueller)

Scikit-learn is a Python machine learning library containing a large collection of machine learning models, as well as evaluation metrics and tools for implementing machine learning workflows.

The goal of this project is to analyze the current usage of scikit-learn on a large scale (i.e. the scale of all open-source code, even all public code), and extend the library based on the findings; to identify usage patterns, problematic use cases, and ways to improve the interface.

Columbia Business School
Research Assistant
September 2017 - January 2018 (5 months)
Greater New York City Area

iTech Mission Pvt. Ltd.
Data Scientist Intern
May 2017 - June 2017 (2 months)
New Delhi Area, India

During my internship as a Data Scientist I accomplished the following tasks:

- Data collection and extraction using various websites like World Bank, UNDP, UNICEF etc.
- Data filtering

- Data visualizations using D3js predominantly along with Microsoft Power BI, Tableau and Adobe Photoshop for Info graphics.
- Writing tech blog correlating topics like GST, BRICS Meet, Ocean Conference, Planet 50-50 with SDGs.
- Extensive reading and research on data and whitepapers in SDG 13 and 14: Climate Change and Life below water respectively.

Whilst my term, we worked on the project of 'The Ocean Conference Challenge' as well, for data analytics and visualization, for which we were awarded by the UN-DESA.

Microsoft
Machine Learning Intern
May 2016 - July 2016 (3 months)
Hyderabad Area, India

- Worked with the Bing Team for Machine Learning and NLP.
- Worked on developing a Skype ChatBot for Redmond Campus, fulfilling 6 broad criteria.
- Coordinated with the Redmond team for understanding the functional and technical requirements.
- Worked with BotFramework in Microsoft Visual Studio (C#) on Azure, Cognitive services, Bing Maps, NLP, luis.ai, REST APIs and machine learning.

International Management Institute - IMI
Data Analyst Intern
January 2016 - February 2016 (2 months)
New Delhi Area, India

- Did extensive research on capacity utilization of goods and Index of Industrial Production.
- Read many research papers and company white papers to gain knowledge.
- Made theoretical hypothesis regarding the IIP growth, and to prove the hypothesis, did data analytics.
- The analytics included Time Series and Wharton Index of Growth for Capacity Utilization of Goods in Indian Industry using Index of Industrial Production.

National Informatics Centre - India
Data Research Analyst Intern
December 2015 - February 2016 (3 months)
Delhi

- Data set of a restaurant-customer ratings was collected through internet sources. (data.gov.in)
- The analysis had to be done to find the dependent factors which influence the overall rating, food rating and service rating of the restaurant.
- Predictive analysis needs to be applied to find response of customer in a different scenario.
- In the pre-processing of the dataset, qualitative information was converted to quantitative data; including data cleaning.The dataset was converted into multiple table using the database approach- entity relationship diagram.
- Supervised learning methods of correlation, linear regression and ANOVA was done. Later, unsupervised learning method was also applied. Unsupervised learning does not use previously known results to train its models. Rather, it uses descriptive statistics to examine the natural patterns and relationships that occur within the data and does not predict a target value.

- Another data set of Mutual Fund Performance for 8 years was collected.
- The growth rates of the mutual fund are influenced by various factors, which are mostly indirect, like the technological development in industries, industrial growth, gross profit margin in the industry etc. in which the mutual fund company has invested its bonds. For the customer to buy a mutual fund bond, the Net Value of the bond should be high, so as the person who is investing gets higher returns.
- For the purpose, predictive and time series analysis was applied for model generation.

EY
Social Media/Business Analyst Intern
January 2015 - August 2015 (8 months)
Virtual

The company hired me for social media and business analytics- highly confidential.

- The dataset was entirely generated by extracting information from the Twitter profile of the clients for whom the analytics was performed. For the purpose, Twitter Streaming API (text mining) was used.
- The data was wired to the RStudio using twitteR library and the analytics was coded using R language.
- Various analytical methods were applied, namely, word cloud where an image composed of words used in a particular text or subject, in which the size

of each word indicates its frequency or importance; sentiment analysis which is a process of computationally identifying and categorizing opinions expressed in a piece of text, especially in order to determine whether the writer's attitude towards a particular topic, product, etc. is positive, negative, or neutral.
- Later User Activity Monitoring (UAM) was also performed to visualize the activeness of the user in making posts, sharing posts, liking and commenting using info graphics.
- All the data inferences were converted into one-sliders which consisted of all information as graphics for each client being inspected.

International Management Institute - IMI
Market Data Analyst Intern
June 2015 - July 2015 (2 months)
New Delhi Area, India

I did the project with Dr. Neena Sondhi, who has a diverse 20+ years of diverse experience of teaching, research and consultancy. An alumnus and a merit holder from the Faculty of Arts, University of Delhi, she has successfully managed senior administrative roles in the organization.
The project was co-mentored by Dr. Chhavi Mehta who is a professor in IMI. She has completed her PhD from IIT, Delhi and has done Empirical Financial and Accounting Research Program from IIM, Calcutta.

- A survey was conducted among various Stock market investors to analyse their investment behavior.
- The data collected was converted from qualitative to quantitative for ease in analysis. Data cleaning and pre-processing was performed.
- The aim of the project was to analyse and build models for Customer Satisfaction and Profit Prediction & Enhancement for Stock Market.
- The analysis was done using IBM SPSS.

Tata Consultancy Services
Market Data Analyst Intern
March 2015 - May 2015 (3 months)
Chennai

- Data from NSE and BSE websites of Sensex and Nifty was collected.
- Data values of various parameters like gold rates, industrial production, textile rates, mining etc were extracted.
- The purpose was to find a relationship, as to how the growth or decline in various industries can effect the Sensex and Nifty rates to go up or down.
- Predictive modeling using regression and time series analysis was applied.

- The analysis was done in IBM SPSS.

Tata Consultancy Services
Research And Development Intern- Cloud Computing
December 2014 - January 2015 (2 months)
New Delhi Area, India

- I worked for the client DirecTV, USA for modeling their transmission via cloud platform.
- Extensive research was done to understand the encryption algorithms, video streaming, real time transmission using cloud computing etc.
- A cloud architecture was designed to do receive data from satellite, perform video encryption and transmit it in real time to the receiver set top boxes.

Delhi University
Research And Development Intern- MATLAB development
June 2014 - July 2014 (2 months)
New Delhi Area, India

- Extensive research on forensic science and handwriting analysis was done.
- Handwriting features and their dependency with the human personality was studied.
- A survey was conducted where uniform handwriting samples of families were collected, father, mother, grandparents, kids and siblings; in order to analyse upon the characteristics of handwriting that are inherited.
- Later, a software was developed using MATLAB, where handwriting text can be recognized, similar to OCR and handwriting features like slant, kurtosis, skewness, margin gap, inter-word and inter-line spaces were analysed.
- Our research and the results were well-appreciated by a lot of researchers, and we got our work published in International Refereed Journal of Engineering and Science.

Education

Columbia University in the City of New York
Master of Science - MS, Data Science · (2017 - 2018)

Vellore Institute of Technology
Bachelor of Technology (B.Tech.), Computer Science and Engineering · (2013 - 2017)