

# Nisha

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## EDUCATION

**MSc in Data Science and Analytics with a Year in Industry:** **2019 - 2020**

Royal Holloway University of London, UK

Distinction

• Module includes: Data Analysis, Machine Learning, Database Management System, Big Data, Data Visualisation, Business Intelligence

**Bachelor's of Technology in Electronics and Communication Engineering (IP University):** **2016 - 2019**

Guru Gobind Singh Indraprastha University, India

7.8 CGPA

• Module includes: Data Structures, Object-oriented programming, Communication Systems, Project Management

## TECHNICAL SKILLS

**Data Analysis Skills:** Predictive Analysis, Data Extraction, Wrangling & Exploration, Supervised & Unsupervised machine learning algorithms, Regression & Classification, Neural networks & Clustering, Recommendation Engine, Sentiment Analysis, Statistical analysis, Time Series, Data Mining & Data quality, Data analysis using Excel.

**Languages:** R, Python (Pandas, NumPy, Matplotlib, Seaborn, ISLR, Scikit-learn)

**Database Skills:** SQL Server Management Studio (SSMS), Data warehouse

**Big Data:** Hadoop, PySpark, Yarn

**Reporting Tools:** Power BI (*Microsoft Power Bi Certified Data Analyst Associate*), Tableau.

## WORK EXPERIENCE

**NCS-IT, London, United Kingdom**

**June 2020 – March 2021**

**Data Analyst Intern**

- Load, Review and validate NHS patient dataset using SQL and various tools also implemented data analysis methodologies and perform data profiling to identify and understand anomalies.
- Performed end to end ETL (Extract, Transform and load) process of gathering the data from different sources to end user and reporting on tools like Power BI and Tableau to create and automate customer profitability report using DAX functions for 5 clients dealing in industries like Healthcare and Fire & Rescue services.
- Involved in Data Preprocessing techniques for making the data useful for creating Machine Learning models. Created 2 Machine Learning models by using various python libraries referring NHS datasets, Coordinated a team of 5 Data Scientists.
- Developed, implemented, managed, and analysed reports to keep business partners and management apprised of key risk and performance information.
- Used excel to maintain charts and tables to churn out some daily reports. Additionally, used python in order to automate the excel files which I got on the daily basis and report back to the Clients.
- Analysed business processes, procedures, and information requirements to resolve problems and improve the efficiency of the Group.
- Remodelled 64 Tableau dashboards for a client in healthcare sector ensuring additional functionalities like set control and tablet view to improve the NHS dataset analysis containing more than a million patient records by addressing user questions and inquiries, monetary performance, and communicating technical and functional issues.
- Tested the usability of a NHS healthcare website and enhanced its functionality, performance and scalability to make it more user friendly which resulted in 20% increased customer engagement within 2 months of implementation.
- Ability to understand business needs, diagnose performance issues, and develop recommendations through combination of data analysis and business critical thinking.

**Rainopsys Technosol Pvt Ltd, India**

**Jan 2019 – Sept 2019**

**Data Analyst**

- Converted data into actionable insights by predicting & modelling future outcomes for enhancing business solutions.
- Designing and maintaining data systems and databases; this includes fixing coding errors and other data-related problems.
- Communicating with onshore team on daily basis sharing the updates while working in an agile environment.
- Created Dashboards using BI reporting tools e.g. Power BI and Tableau for the visual analysis of datasets to the clients/team.
- Load CSV, Excel, Access Database and Flat files into Staging Data Source using SSIS.
- Created multi-dimensional Data model in SQL Server based upon Kimball methodology (Fact Tables & Dimensions)
- Developed SQL queries using stored procedures, common table expressions (CTEs), temporary table to support data transformation and functions for data manipulation.

## PROJECTS AND SEMINARS

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### Spam Detector: Using Naive Bayes Classifier

Worked on training a model to classify SMS as spam or ham. It starts with cleaning the text data which involved removing punctuation using Regex and removing stopwords. The text was then converted to matrix using Count Vectoriser and trained using Naive Bayes Classifier. Also, Model evaluation was conducted by checking the confusion matrix, precision, recall and f1-score.

### Heart Detection: Using KNN Classification

I used Machine Learning to predict whether a person is suffering from a heart disease using Machine Learning algorithms such as K Neighbors Classifier, Support Vector Classifier, Decision Tree Classifier and Random Forest Classifier. I varied parameters across each model to improve their scores, where K Neighbors Classifier achieved the highest score of 87% with 8 nearest neighbors.

### Twitter Data Analysis: Using SQL

Obtained twitter database and brought it down to 3rd normal form through decomposition, ran complex queries to check its efficiency using MySQL.

## POSITION AND RESPONSIBILITY

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### Training & Placement Coordinator at BVCOE T&P Cell

College's Training & Placement cell; maintains corporate relations to increase internship and placement opportunities for students

- Networking and Organisational skills: Organised placement drives – coordinating with the company and students with effective communication skills; reserving college resources
- Attention to detail: Conducted CV building and interview preparation workshops for all the final year students, more than 50 applications got selected
- Adaptability and Flexibility: Quickly learned Microsoft office including Excel (macros) for maintaining student record
- Critical thinking and Problem solving skills: Took one to one query solving sessions with students having trouble with T&P

### Event Coordinator at NSS (National Service Society)

The National Service Scheme is a public service program conducted by the Ministry of Youth Affairs and Sports of the Government of India

- Responsibility and Reliability: Supervised organisation of several educational campaigns across the Country
- Volunteering: Organised book collection drives for the less privileged in the hinterlands of India
- Initiative and self-Starter: Responsible for Clean India Movement to raise awareness about cleanliness, sanitation and hygiene

### Event Manager at Xstasy

College's annual cultural festival that witnesses participation from across India in events as diverse as fashion shows and futsal tournaments

- Teamwork & Leadership skills: Responsible for global management of event organised during the Fest; Led a team of 50 students
- Initiative and Management skills: Coordinated sponsorships and public relations; brought in funds worth GBP 3,500

## RESEARCH AND DEVELOPMENT

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### Research paper published in Frontiers in Optics, OSA

Sep 2018

Title: "Channel Allocation Algorithm in Hybrid DWDM Systems for Reduction of FWM"

### Research paper published in Optical Engineering, SPIE

Oct 2018

Title: "Unequally Spaced Decreasing base units-unequally spaced channel allocation algorithm for dense wavelength division multiplexed transmission systems"

## ACHIEVEMENTS AND AWARDS

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- Presented / published research paper in the field of optics in Optical Society of America Frontiers in optics + Laser Science (FiO+LS)
- Participated in poster presentation at Optical Society of America, Washington DC, US
- Awarded with Robert S. Hilbert Memorial Student Travel Grant at FiO Awards Ceremony
- **Football:** Won the intra-university football tournament and was awarded the best player award
- **Basketball:** Part of college's women's basketball team

## VISA STATUS

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- Currently on Tier 4 Student Visa; eligible for Post Study Work Visa (Graduate route)