

# Nisha

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## SUMMARY

A meticulous Data Analyst with strong creative and problem solving abilities. Substantial knowledge in Statistical languages and Machine Learning. Seeking to leverage data analytical skills to uplift technological advancement as a Data Analyst with strong desire to learn and grow within an Organisation and helping businesses succeed.

## EDUCATION

### MSc in Data Science and Analytics with a Year in Industry:

2019 - 2020

Royal Holloway University of London, UK

Distinction

- My degree deals with designing data processing solutions for data-intensive analytics problem using software packages such as Python, MATLAB and R.
- Module includes: Data Analysis, Machine Learning, Database Management System, Big Data, Data Visualization, Business Intelligence

### Bachelor's of Technology in Electronics and Communication Engineering (IP University):

2016 - 2019

Bharati Vidyapeeth's College of Engineering, India

7.8 CGPA

- My degree included a mix of science and maths, along with engineering techniques, designing and managing equipment used to control and monitor processes, systems and machinery in many different areas.
- Module includes: Data Structures, Object-oriented programming, Communication Systems, Project Management, Network Analysis, Data Communication & Network, Information Theory & Coding

## 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, Matlab.

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

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

## WORK EXPERIENCE

### NCS-IT, UK

#### Data Analyst Intern

June 2020 – Till Present

- 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, Fire and Rescue services and Housing etc.
- 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. Presented findings directly to the key stakeholders through documentation for data flows, processes, testing and training.
- I used excel to maintain charts and tables and to churn out some daily reports. Additionally, I also combined various Excel files, get specific values, and add formulas across workbooks using python in order to automate the files which I got on the daily basis and report back to the Clients.
- 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.
- I 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.

### Rainopsys Technosol Pvt Ltd, India

#### Data Analyst

Jan 2019 – Sept 2019

- Converted data into actionable insights by predicting and 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/progress etc while working in an agile environment.
- Created Dashboards/Reports (Ad-hoc) using BI reporting tools e.g. Power BI and Tableau for the visual analysis of datasets to the clients/other teams. Also, Created and automated customer profitability report using DAX functions.
- Load CSV, Excel, Access Database and Flat files into Staging Data Source using SSIS.
- Create a multi-dimensional Data model in SQL Server based upon Kimball methodology (Fact Tables and Dimensions)
- Developed SQL queries using stored procedures, common table expressions (CTEs), temporary table to support data transformation and functions for data manipulation.

## RESEARCH AND DEVELOPMENT

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

Title: *“Channel Allocation Algorithm in Hybrid DWDM Systems for Reduction of FWM”*

### Research paper published in Optical Engineering, SPIE

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

## 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

## INTERNSHIPS AND TRAININGS

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### Bharat Electronics Limited, UP, Ghaziabad

Surface Mount Technology and Radar Systems: Technical skills

- Worked on designing and engineering various printed circuit boards using surface mount technology
- Risk management & process analysis: Performed fabrication & inspection of PCBs during later stages of manufacturing process
- Evaluated and benchmarked the performance of different radars such as Rohini Radar

### Bharati Vidyapeeth's College of Engineering, New Delhi

Internet of Things: Software skills

- Developed android applications to control WebIOPi enabled Raspberry pi sensors for live parameter tracking
- Used tools such as Read Weather and Twilio to configure applications to track weather and alert users

### Bharati Vidyapeeth's college of Engineering, New Delhi

Intern: Embedded Systems

- Developed android applications for day to day tasks such as music player and pedometer
- Designed a human identifier using PIR sensors and ultrasonic distance detectors to automatically switch on and off lights

## 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.

### **Hybrid Amplification using Erbium Ytterbium Co-doped Fibre Amplifier(EYC DFA)**

- Theoretically modelled and numerically analysed EYC DFA under different pumping power configurations
- Evaluated amplifier output power and eye diagram using the software OPTSIM
- Achieved high gain and low noise figure of the WDM-EYC DFA

### **Seminar on Hybrid Amplification for Dense Wavelength Division Multiplexing System**

- Studied characteristics of all Amplifiers
- Problem solving skills: An Optical amplifier with high gain was introduced using Er doped fibre with Yb
- Effective communication and Presentation skills: recognised as best ppt of the year among all the final year students

### **Seminar on Reduction of Four Wave Mixing in Dense Wavelength Division Multiplexing**

- Analysed the impact of fibre nonlinearities on the performance of DWDM system
- Proposed an Unequally Spaced Channel Allocation Algorithm,DWDM system, for FWM reduction
- Overall performance in terms of covered optical bandwidth, reduced FWM products and received output power was reported

### **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)

### **REFERENCES**

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Available on Request

