**Mukund Kumar**

**Senior Consultant – Data Science**

**+91- 9980138059**

**Summary**

* Experienced professional with proven expertise in the design and development of data intelligent products providing high-end solutions to business problems. Adept at understanding and solving business problems using the consulting framework.
* Areas of Interest*:* Product Design, Statistical Modelling, Machine learning, Visualisation, Business Insights.
* Target Sectors*:* Finance and Insurance, Banking, Customer Service
* Previous Experience: Machine Learning Model Development, Application integration, Descriptive Analytics, Text Analytics, Natural language Processing (NLP), REST API’s ,Amazon Alexa, Machine Learning Dashboard.
* **Skills:** Hands on experience in **Machine Learning using R and Python**, data preparation and exploratory data analysis using **Python,** Business insights using **Power BI**, IBM Watson **Knowledge studio**, IBM Watson **Natural Language Understanding (NLU)**,IBM Watson **Discovery,** IBM Watson **Assistant , Cloud Pak for Data .** Has hands on ML services of **GCP and AZURE.** Hands on ETL and data engineering using **SQL Server, SSIS.** Has done process automation using **Python and AWS.** Hands on experience in **Flask web deamework** for developing API

**Academic Details**

* **Master of Computer Application** from Manipal Jaipur University (MUJ),2021-2023
* **Product Management Certification** from Duke University, 2021
* **Post-Graduation Program in Data Science** from IIIT-B , 2017-2018
* **B.Tech (Mechanical Engineering)** from VTU, Belgaum , 2008-2012

**Projects**

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| **Title**  **Industry** | **:**  **:** | **Intelligent Automation of Trade Finance**  Banking and Financial service |
| **Role** | **:** | Solution Architect, Data Science Consultant |
| **Method** | **:** | Machine learning, Image Processing, Natural Language Processing |
| **Tools** | **:** | IBM Watson Knowledge studio, Natural Language Understanding, Cloud Pak for Data |
| **Description** | **:** | Client is leading banking customers in India aspiring to transform and modernize their current IT Infrastructure for their Trade Finance business. A Cognitive data capture & extract solution for trade documents with feedback mechanism to provide feedback & teach the system with ML capability. Improved OCR accuracy with intelligent learning capabilities. Along with automation of the scrutiny rules using combination of BRE, AI technologies, Machine Learning & Knowledge base. |

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| **Title**  **Industry** | **:**  **:** | **Automatic Ticket Routing**  Customer Service |
| **Role** | **:** | Data Science Consultant |
| **Method** | **:** | Machine learning, Text Classification, |
| **Tools** | **:** | IBM Watson Knowledge studio, Natural Language Understanding, Python |
| **Description** | **:** | Project aimed to automate the process of support ticket assignment to appropriate team to facilitate faster resolution. A machine learning model was developed in Watson Knowledge Studio (WKS) to extract key information like product name, components and issue type. A classifier was developed using Python to identify appropriate team. Both services were called in a Flask API to process new ticket created in Salesforce CRM and assign it to team identified. |

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| **Title**  **Industry** | **:**  **:** | **AI enabled Bot – application support to decision making**  Banking and Financial Services |
| **Role** | **:** | Data Science Consultant |
| **Method** | **:** | NLP, Text Mining, Content Mining |
| **Tools** | **:** | IBM Watson Assistant, IBM Watson Knowledge Studio, Python |
| **Description** | **:** | Company is leading provider of credit cards, travel cards and privilege cards. Their planning team is facing recurrent and repetitive issues related to their planning and budgeting application. Project was aimed to reduce dependency of users on technical for technical issue and remove time-zone barrier underlying with issues resolution.  A cognitive system was designed which was trained to take care of user query related to planning and budgeting application. This has reduced number of issues reported as user’s query were taken care by cognitive system. Cognitive system is able communicate to TM1 API to get certain numbers and ad-hoc reporting on demand. Cognitive system is AI and NLP enabled and can understand natural language like English and take appropriate action accordingly. |

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| **Title**  **Industry** | **:**  **:** | **Smart Enterprise Search Portal**  Customer Service |
| **Role** | **:** | Data Science Consultant |
| **Method** | **:** | Machine learning, Text mining, Image-To-Text, |
| **Tools** | **:** | Azure Cognitive Service, Azure Search, Python |
| **Description** | **:** | A very well-known enterprise in networking and security wanted to have smart and relevant search system to assist their support engineers during support call. All technical documents were analyzed and indexed using Azure cognitive search. An API was developed to take input query and return search results ranked according relevancy and recency. |
| **Title Industry** | **:**  **:** | **Predictive maintenance of Machineries using sensors**  Food Safety |
| **Role** | **:** | Consultant (Machine Learning and Big Data) |
| **Method** | **:** | Clustering, Motif Discovery, Seasonal and Trend Analysis, Anomaly Detection, Forecasting, One class SVM |
| **Tools** | **:** | R, RDBMS (SQL Server), Shiny R, Kafka |
| **Description** | **:** | Company is leading solution provider for IOT based critical control points monitoring of controlled environment like refrigerator, oven etc. Their sensors continuously monitor temperature, humidity dew points etc. of a controlled environment. IOT sensors data are utilized to prepare reports in compliance with food safety regulations and HACCP programs. Current system was working on SQL server database. With growth of data in volume and velocity current system was not able to process data at desired speed.   * Anomaly Detection for Predictive maintenance of Machine * Defrost Cycle Calculation * Maintenance Cycle Prediction |

**Title : Voice Analytics Platform**

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| **Industry** | **:** | Customer Service |
| **Role** | **:** | Solution Architect,Data Science Consultant |
| **Method** | **:** | Audio Analysis, Speech-To-Text, Text Mining , |
| **Tools** | **:** | Python, GCP ML Services, AWS Connect |
| **Description** | **:** | Automatic Transcript generator for customer support calls. Seamless and unbiased quality analysis of all support calls. Sentiment analysis, Tone Analysis, Speaker Identification, Talk-over analysis, Silence Detection, Grammar/Soft Skills Check are key features of this platform. Using NLP techniques different key information like product discussed, customer satisfaction, root-cause were identified. Integrated to AWS Connect and Avaya CMS |

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| **Title**  **Industry** | **:**  **:** | **COEUS- Enterprise Insight Platform**  Customer Service |
| **Role** | **:** | Database Architect |
| **Method** | **:** | Data Warehouse , ETL , Integration |
| **Tools** | **:** | SQL Server, SSIS |
| **Description** | **:** | Single web app to track, monitor, and improve performance of contact center engineers.  Analyzed business KPI's, evaluate agent's performance and create single platform by establishing relationships between CMS, WFM and MIS data.  Key member of the database team to develop ETL strategy, schema design, data validation, data transformation, stored procedure creation  Created SSIS package to collect data from multiple data sources Analyzed the data requirements and understood the business rules to implement validations and transformations. Wrote Python scripts for effective data manipulation and transformation |

**Some More Turn Key Solutions**

* **Visual Bot** a platform for a visual interactive conversation for customer support activity. Used Python, TensorFlow and WebRTC to detect objects in real-time and carry on a contextual conversation.
* **Video Processor** desktop application for GIS engineers to automate the geotagging process. Python, OpenCV, and Image-To-Text is used for the video analysis
* **HR Assistant** a Watson Assistant chatbot to help bank employee to check for their eligibility for educational subsidy. Chat bot prompt various question in conversational manner, process the input from employee and decide if they are eligible or not.
* **Cognitive Docu-Parser** an intelligent document parser tool which facilitate automatic information extraction from different format of document like PDF, Image, Text etc. It also validates extracted information against standard rules automating the decision making.
  + Use cases implemented – Loan application, Trade Finance

**Certifications**

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|  | Watson Knowledge Studio Methodology | <https://www.credly.com/badges/e9755402-dd14-48eb-8d53-4951d2a03907/public_url> |

**Personal Details**

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| **Date of Birth** | **:** | 25th Nov 1990 |
| **Languages Known:** | **:** | English, Hindi |
| **Address** | **:** | Whitefield, Bengaluru |