DESH RATAN

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| **EXPERIENCE** | **HSBC : Assistant Manager-Decision Science** | *Jul'19 – Present* |

- Working as an integral part of FCTM (**Financial Crime Threat Mitigation**) Analytics team to build and deploy Machine Learning Models. It helps to identify the risky entities (customers or legal business parties) by scoring them on their propensity to commit financial fraud. It's an Intelligence led approach as compared to traditional rule based which generates lots of false positive alerts, ultimately leading to reduction in operational efficiency.

- The model has been developed for various countries like UK and Hongkong. Throughout the model development life cycle an extensive use of tools and technology such as **HIVE** (to query data from large data lakes), **Python** (Jupyter Notebook) and various **Machine Learning algorithms** as well visualization tools were made.

- Worked end to end in a model development journey, starting from **POC** (proof of concept), business stakeholders approval, actual model development, model documentation and model governance through various platform like **IMR** (Independent Model Review)

- Have a comprehensive understanding of post model development process, especially model governance. Once a risk model is developed, it undergoes approval from various **lob**s(line of business).At the same time various documents like **MDT**(Model Documentation Template),**MRMR**(Model Risk Materiality Rating),**MAF**(Model Approval Form),**MIR**(Model Implementation Report), **Model Monitoring**, compliance **CDE**(Critical Data Elements) list and **DATA Ethics** report is generated to evaluate data completeness, biasness and it's impact during pre and post implementation. These are critical for GO Live Approval of the model.

- Liaison with IT to productionize the various analytical solution like **CSM**(Contextual scoring Model),**FES**(Focal entity Scoring),**ADM**(Anomaly Detection Model) and **HK Equities Tactical** solution using AML 2.0 frameworks.

- Developed **Model monitoring framework** to validate the model performance on bau basis using **KPIs** like **PSI** (Population Stability Index),**CSI**(Characteristic Stability Index) and other suitable metric to identify **RAG** status .

- Developed Explainability tools to access the impact of features over the risk of an entity using SHAP. It helps to improve Machine Learning (**ML**) model interpretability.

- Experience with **AML** transaction monitoring platforms like Actimize and **CAMP** (Customer Activity Monitoring Program).

- Implemented the change in BAU (business as usual) related tasks which improved the overall efficiency of EHL (extended Hibernation list i.e low risky entity) generation and also developed an automated workflow/pipeline on Model Refresh technique to streamline the current process.

KEY Contribution in Various AML (Anti-money Laundering) and TM (Transactional Monitoring) Projects:

a) **CSM (Contextual Scoring Model):** Migrated the current process form SAS to python which saved annual licensing fee for the bank. The main objective of CSM is to predict low risk entities and assign to Extended Hibernation List (**EHL**). It uses past 6 -9 months of data to predict potential risk associate with an entity.

b) **FES (Focal entity Scoring):** Helped to design end to end AML solution which improved the current operational efficiency by 25%. It's a machine learning model which expire low risk entities in an automated process. This solution resides on Global Event Triage (**GET**) infrastructure which runs on monthly basis.

c) **HK – Equities Tactical Solution**: Build a tactical solution for Trade monitoring in Hongkong region based on **HBS** (Historical Behavior Scenarios).

d) **Anomaly Detection:** Developed an anomaly model which predicts the likelihood of an existing customer to be involved in money laundering based on Anomalous transaction behavior for Asia Pacific region. It is an **alert prioritization framework** within post detection solution for mid-size countries like Australia, Bangladesh, Philippines and Sri Lanka,

Sapient Consulting Pvt Ltd: Software Developer   *Sep'16 – Jul'17*

- Digital Platform for Renault-Nissan Alliance: Engaged in development of single best in class global digital platform for all brand in Renault-Nissan Alliance like Renault, Dacia, Infiniti, Nissan and Datsun which was deployed for various market.
- API Development: Worked in Helios Project in the field of API (Application Programming Interface) management using Apigee (Api Management Platform) which helps in centralizing a lot of authentication policies as well as exposing the APIs to internal and external partners easily according to their need.
- Implemented change in project testing technique for each and every api end points using postman to an automated version which enhanced the efficiency by 30%.

PROJECTS & INTRNSHIP	**FYND** : Omnichannel Retail Strategy and Development *May'18 – Jul'18*

- **Category Gap Analysis:** This involved identification of category gap in FYND's product portfolio like styles or product count. Brands were identified on various parameters like ASP (Average selling Price),item count.
- **New Category Feasibility Analysis:** Store visits were made to beauty brand like NYKAA, Sephora, Inglot to get a primary idea about new products to be sold on the FYND omnichannel platform.
- Renegotiated and increased the average commission of 15 existing seller brands on Fynd platform by 5%.
- Evaluated the order processing steps using KPIs and identified bottlenecks for service improvements by 10% .

CERTIFICATIONS **KPMG Lean Six Sigma Certification (Green Belt) :** Completed training related to improving processes, defect elimination based on statistical techniques and methods.

ACHIEVEMENTS AND EXTRA-CURRICULAR ACTIVITIES

- **Rated Top Performer** in Compliance Analytics team for exceptional performance in year 2020-21.
- **Awarded Leading Light Awards** for excellent service delivery in Q3 2020.
- **Runner-up in '**DATA-ROBOT**'** competition among 50 global teams in HSBC.
- Played an active role in organizing **First Ever Virtual off-site** in Compliance Analytics team.
- Presented Innovative ideas for **'BAU Automation'** before **Idea Hub Platform at GAC** (Global Analytics Center)
- Being part of Learning and Development(**L&D**) committee, various KT session was conducted for new joinee.
- **Received** High Distinction in Math and Distinction in Science from The University of New South Wales.

EDUCATION

- Indian Institutes of Technology, Kharagpur **(IIT Kharagpur)**   **2017–2019**
  Master of Business Administration (MBA)
  General management (CGPA : **8.06/10**)

- Birla Institute of Technology, Mesra **(BIT Mesra)**   **2012–2016**
  Bachelor of Technology (B.Tech)
  Computer Science (CGPA : **8.14/10**)

- Satyam International   **2009–2011**
  Class XII (CBSE Board)
  Science Stream - **81%**

- B.D. Public School   **2002–2009**
  Class X (CBSE Board)
  Science,Math,Social Science,Hindi,English - **95%**