AI ML Engineer with experience in Business Intelligence (14+years), Artificial Intelligence and Machine Learning (7 years) , Big Data Tech Technologies, Data Ingestion, Data Modelling, Data Visualization, DB design.

**SUMMARY:**

* Professional experience in business domain - Banking & Finance, Medical Health, Insurance & Manufacturing.
* Exposure to data mining algorithms including supervised and unsupervised machine learning techniques.
* Good experience in Object Oriented Programming (Python).
* Strong Experience in Mathematics and Statistics.
* Experience with building data pipelines in getting the data required to build and evaluate ML models, using tools like Apache Spark, AWS Glue or other distributed data processing frameworks.
* Exposure to various algorithms such as Gradient Boosting, Decision Trees, Multivariate Regressions, Logistic Regressions, Neural Network, Random Forest, Support Vector Machine, Time Series forecasting, Optimization, CNN, NLP, Transformer Model such as RNN, GAN, BERT, BART etc.
* Experience in information retrieval, Information Extraction, LLM Integration.
* Web Application - Shiny, Streamlit & Heroku.
* AI & ML – Python, R, Scikit-learn, Pandas, NumPy, AutoML, Matplotlib, **TensorFlow**, Keras, Jupyter, NN, NLP, MLLib
* Experience in deploying Model using Gitlab, CI/CD Pipeline, MLOps etc.
* Experience in developing ML infrastructure and MLOps in the Cloud using AWS Sage maker, LLM, Generative AI.
* Experience with Docker & Kubernetes.
* Cloud technologies – AWS. Azure,
* Big Data Technologies - HIVE, HBase, MongoDB, Kafka, spark.
* ETL Tools - Informatica, DataStage.
* Visualization Tools - Cognos 11 Analytics, Tableau, Power BI

**WORK EXPERIENCE:**

|  |  |
| --- | --- |
| **Saika Technologies Inc** (**AI-ML Engineer**) | **07/2023 - Present** |

**Client : P&G**

**Responsibilities:**

* Designed and implemented the scalable machine learning models resulting in a 30% improvement in predictive accuracy for client projects.
* Implemented data processing and analytics pipelines with Pandas and NumPy & Databricks
* Utilized Git for version control and collaborated using GitHub and GitLab.
* Managed end-to-end machine learning projects from data ingestion and preparation to model deployment and monitoring.
* Deployed and managed over 25 EC2 instances for various applications, ensuring high availability and fault tolerance through the use of Auto Scaling and Elastic Load Balancing (ELB).
* Managed petabytes of data storage using Amazon S3, implementing lifecycle policies and cross-region replication to enhance data durability and compliance.
* Secured sensitive data using AWS KMS (Key Management Service) for encryption at rest and in transit, ensuring compliance with data protection regulations.
* Set up comprehensive monitoring and alerting using Amazon CloudWatch, enabling proactive identification and resolution of performance and operational issues.

**Tools and Technology: Python, R, Generative AI, AWS(EC2, ELB, RDS , KMS etc), MLOps**

|  |  |
| --- | --- |
| **Gurucul Solutions Inc – Inhouse project** (**AI-ML Engineer)** | **10/2021 - 05/2023** |

Gurucul is a global cyber security company that is changing the way organizations protect their most valuable assets, data and information from insider and external threats both on-premises and in the cloud.

# **Responsibilities:**

* Developed Fraud detection algorithm for Insider threat & IP theft to reduce the False positive case by 40%.
* Design and Build MLOps deployment pipelines.
* Detected and remediated risky users and entities in real time which reduced the burden of SOC analyst efforts and time by 25%.
* Using Generative AI, we have implemented the context around an alert to investigate accurately.
* We proposed to build a language model using NLP which worked on cyber security text, as result, it can improve downstream tasks (NER, Text Classification, Semantic Understand, Q&A) in Cyber Security Domain.
* Integrate AI/ML Model and APIs into production AWS SageMaker.
* Developed Shiny web application for use cases to show the quick finding to non-technical stakeholders.
* Developed Model for Sales and Marketing team to identify Hot and cold deals with email subscriptions.
* Worked in Text mining to retrieve useful information for decision making Analysis.
* Deployed smart access analytic solutions to automate access cleanup and reduce outliers, excess and rogue access by 60%.

**Tools and Technology: Python, R, AWS, LLM, MLOps**

|  |  |
| --- | --- |
| **Yash Technologies**, **TN** **(Reporting Architect**/**Data Scientist**) | **12/2013 - 10/2021** |
| **Smith and Nephew** (**Data Scientist**) | **01/2018 - 10/2021** |

Smith & Nephew is a diversified advanced medical technology business that supports healthcare professionals to improve the quality of life for their patients.

# **Responsibilities:**

* Developed Models for Supply chain team to reduce the Inventory cost by 25%.
* Deployed application code into AWS sage Maker cloud environment.
* Integrated various applications through APIs connectors.
* Forecasted with time series data for the raw material demands for Supply chain Management.
* Collected and completed the scope requirements, efforts, resource and schedule for each approved project.
* Developed model for Price Elasticity for finished product using machine learning.
* Migrated the entire DWH platforms into cloud-based Snowflake DWH platforms.
* Managed effective communication and conducted project specific calls with senior leadership teams, application team, infra teams, BAU teams and other key vendors on a daily or weekly basis as per the criticality of the project.

|  |  |
| --- | --- |
| **BMW North America** (**Reporting Architect Lead**) | **06/2017 - 12/2017** |

* Designed ML prediction Model using for inventory for distribution channel.
* Managed the Team of 20 people to support the BMW Reporting platforms.
* Ensuring compliance and data privacy and security regulations.

|  |  |
| --- | --- |
| **JMA Wireless** (**Reporting Architect Lead**) | **12/2016 - 06/2017** |

* Design the data model and reporting platform including the ETL, DB layer and Reporting.

|  |  |
| --- | --- |
| **JPMC** (**Reporting Lead / Architect**) | **01/2015 - 11/2015** |

* Designed and Developed the Physical and Logical layer for Enterprise Reporting.
* Co-ordinated with Business for Requirements gathering.
* Designed dashboard for Wealth management team for various KPI which was important for various stakeholder.

|  |  |
| --- | --- |
| **UBS (Cognos Lead)** | **03/2014 - 12/2014** |

* Designed and Developed Data Models and reports for Asset & Risk Managements.

**Tools and Technology: Python, R, AWS, Cognos Analytics, Informatica, Oracle, SQL Server etc.**

|  |  |
| --- | --- |
| **Mphasis, India & USA** | **01/2008 - 12/2013** |

As **Module Lead**, I was involved in the design, development, and implementation of systems and responsible for Data Acquisition, interaction with source systems product processors and doing the source to target data mapping. Worked with Business Analyst in translating business requirements into Functional Requirements Document and create Logical Data Model for Enterprise Data Warehousing

**Tools and Technology: ERWIN, Cognos Analytics, Data-Stage, Oracle, SQL Server etc**

|  |  |
| --- | --- |
| **Quinnox Consultancy, India** | **11/2005 - 12/2007** |

As **Senior Software Engineer**, I was involved in the design, development, and implementation of systems for providing HSBC Securities institutional investment management and Responsible for the Web Security Maintenance of the Cognos Products.

# **Responsibilities:**

* Installation and configuring of Cognos products including Cognos8 / ReportNet1.1MR3 Cognos7.3 Suite.
* Responsible for the Web Security Maintenance of Cognos Products. Implemented data security using Access Manager.

|  |  |
| --- | --- |
| **Accenture, India** | **05/2005 - 10/2005** |

**Responsibilities:**

* Understanding of Business Processes and gathering requirements,
* Design & analyze the model in Framework Manager & developed reports in Reports.
* Analysis on some business requirement and coordinated to change the functional document accordingly.

|  |  |
| --- | --- |
| **Pathfinder Software, India** | **05/2003 - 05/2005** |

As **Software Developer**, I was involved in the design, development, and implementation of Cognos BI Reporting solution for footwear manufacturing industry.

# **Responsibilities:**

Requirement Analysis, Data Transformation using DTS, Analyzing Data Mart Building & administering Impromptu Catalogs, Impromptu Reports, Report Net, Dimensional modeling, Building Power-Play Model & Cubes, Testing, Documentation

# **Proof of concepts recently completed**

* Stock Analyzer App – Getting Live Data and providing analysis on the favorite stocks in AWS EC2 instances using the Docker container.

**Link:** [https://riteshdwh.shinyapps.io/Stock\_Analyzer\_Local/](http://https://riteshdwh.shinyapps.io/Stock_Analyzer_Local/user)

[user](http://https://riteshdwh.shinyapps.io/Stock_Analyzer_Local/user) id: user1 password: pass1

* Product Price Prediction App – Predict the price of new bikes using shiny and R-Markdown dashboard with xgboost model.

**Link:** [https://riteshdwh.shinyapps.io/Price\_Prediction\_app /](http://https://riteshdwh.shinyapps.io/Price_Prediction_app)

* Multi class Image Classifier Project – Developed Model to identifying the breed of 120 different unique breed for dogs.
* Employee Churn App – Develop Model to save $15M per year Employee Turnover cost of productivity hidden cost using Xgboost model to identify the financial Cost of turnover.

**EDUCATION:**

* Master of Science in Physics from NIT Jamshedpur, INDIA and ranked 2nd in University.

**CERTIFICATIONS:**

* Deep Learning and Neural Network – Coursera.
* Business Science with R from Business Science University.
* Machine Learning – Stanford University on Coursera.