Sumant Saxena

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Summary

Business-minded Data Scientist with 4 years of experience in building ML solutions from ground up and demonstrated ability in delivering valuable insights via advanced data analytics to various stakeholders.

Skills

AWS Sagemaker, Python, SQL, Azure, Databricks, PowerBI, PySpark, PyTorch, PuTTY, WinSCP, S3 Browser, Linux, Git, Machine Learning, Statistics, MLOps, Deep Learning, Natural Language Processing (NLP)

Publication:

[Prediction of postpartum hemorrhage (PPH) using machine learning algorithms in a Kenyan population](#)

Experience

SR DATA SCIENTIST | COGNITIVECARE | MAY 2022 - PRESENT

Medical Image Prediction Framework:
- Collaborated with the internal team to brainstorm on DICOM medical image data, image segmentation, and annotation techniques.
- Conducted extensive research on blogs and documentation to identify components essential for designing architectures tailored for healthcare, emphasizing engineering services and solutions for medical imaging.

Early prediction of maternal health outcomes:
- Led a project to develop Risk Stratification models (using Python, PySpark) trained on health records of pregnant mothers to detect adverse maternal health outcomes.
- Served as an individual contributor to develop end-to-end machine learning models (XGBoost, Random Forest), deep learning model (LSTM) and scaled them to run in serverless production environments using AWS cloud services.
- Built pipelines to query and pre-process training data, followed by training, inference pipelines, and visualizations of model results.
- Conducted decile analysis and cumulative gain analysis for investors to evaluate potential returns of the predictive models.
- Worked on Model interpretability to identify key health indicators which are driving the prediction of maternal health risk outcomes.
- Implemented a risk score framework that can automatically collect EHR data and provide a risk score with visualizations for each patient.

CHIEF OF STAFF | COGNITIVECARE | MAY 2022 - PRESENT

- Documented pivotal meetings to ensure stakeholder alignment and effective action item tracking.
- Collaborated closely with internal teams to address priority areas for prospective clients, integrating research findings and data science perspectives.
- Conducted comprehensive assessments of prospective client acquired companies to identify strategic fit and integration opportunities.
- Presented insightful sessions for the internal team on innovation and advancements in data science.

DATA SCIENTIST CO-OP | AHOLD DELHAIZE | AUG 2021 – DEC 2021

Drivers of out-of-stock problem:
· Performed risk profiling on vendors and identified four categories of critical vendors who are likely to fall short on the due date for their deliverables.
· Designed, implemented, and validated statistical models/machine learning models (XGBoost, CatBoost, GBM) in Python, PySpark for predicting performance of vendor on 18 million records.
· Conducted ad hoc analysis and reports with in-depth understanding of business needs catering to senior management and business partners.
· Worked with cross-functional teams to implement and enhance analytical solutions by providing data-driven recommendations.

Throughput Analysis:
· Identified key job codes for analyzing the causes of low throughput in the Distribution Centers (DC)
· Collaborated with product managers and distribution center staff to understand the holistic view of productivity in DCs.
· Used Python and Excel to create visualizations for senior management and leadership.

ASSOCIATE ANALYST | INFOSYS | JUN 2018 – DEC 2020

Automation of Rx Prior Authorization:
· Built a Decision Tree based model to automate 40% of Rx prior authorization claims with 70% recall and 99.9% precision.
· This model had a cost benefit of 1.5 FTE in a year.
Sarcasm Detection:
· Developed NLP based solution for sarcasm detection to display NLP capabilities to the prospective clients.
· Built a CNN model that predicts sarcasm with 85% accuracy.

Education

University of Cincinnati | Master of Engineering | Computer Science
Jan 2021 – Apr 2022

Sir M Visvesvaraya Institute of Technology | Bachelor of Engineering | Electronics and Communication
Aug 2014 – May 2018

Certifications

· Amazon Web Services Cloud Practitioner - Amazon Web Services (AWS)
· Neural Networks and Deep Learning - Coursera