

Solomon Lemma

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Professional Summary

Senior Data Scientist and highly skilled self-starter, with expertise in leveraging advanced analytics and machine learning techniques to deliver data-driven insights. Experienced with producing high-quality deliverables in data preprocessing, data mining, visualization, and data explainability. Proficient in generating processed data, reports, and effectively presenting findings to stakeholders. Seeking a challenging position in the company to contribute impactful business decisions and drive continuous improvement through data science solutions.

Technical Skills

- **Scripting languages:** Python, SQL, R, and MATLAB
- **Computing Tools and Libraries:** Pandas, SQL, Pyspark, Numpy, Scikit-learn, Statsmodels, Keras, TensorFlow, PyTorch, Pycaret, OpenCV
- **Machine and Deep Learning:** Logistic Regression, Random Forest, XGB/CatBoost, K-Means, RNN, NLTK, Spacy, Generative AI, and Large Language Models (LLM)
- **Visualization and models explainability tools:** Matplotlib, Seaborn, Tableau, Power BI, SHAP
- **Cloud Computing for Big Data:** AWS SageMaker, Google Cloud Platform and Azure
- **Advanced descriptive and inferential statistics analysis** skills such A/B test, t-test, hypotheses testing, correlation/regression analysis as well as anomaly detection, and big data annotations.
- **Remarkable working** skills in, Microsoft Office, OriginLab, Git, SPSS, Design of Experiments, Factor Mapping, and Technical Drawing software as well as excellent experience in customer behavior analytics.

Work Experience

Senior Data Scientist

Dallas, TX

Southwest Airlines Co (SWA)

September 2022 to Present

Data Science and Automation

- Design and implement factor mapping to machine learning models development (end-to-end) to assess customers' satisfaction experiences(NextGen modeling) in more than 90% of the business performances.
- Created revenue growth forecasting and customer churning using (XGBoost, Random Forest, and Catboost) to support the business plans for profit enhancement and revenue generation.
- Predicted customers' purchasing behaviors for demand forecasting in dynamic pricing conditions to improve customer handling and engagement.
- Optimizing cargo service and route prediction for an efficient supply chain system of mail services to reduce service costs and improve delivery times.
- Collaborate with teams of business owners, data engineers, and big data analysts to progress the efficient machine learning development on the AWS Sagemaker platform.
- Prioritized and monitored project progress relative to timeline and scopes.

Applied Machine Learning/Data Scientist

Raleigh, NC

Biomanufacturing Training and Education Center (BTEC)

February 2017 to September 2022

North Carolina State University

- Work with business partners to conceptualize and craft business problems and analytic strategies that meet customers' needs and deliver timely results to their problems.

- Successfully delivered end-to-end data and analytics projects, applying advanced analytical techniques to address customer-centric business questions.
- Detecting and predicting eye disease prevalence in the US across the states through machine learning using XGBoost, Random Forest, and TensorFlow for healthcare workload and insurance reduction.
- Developed a Natural Language Processing (NLP) models to identify bias towards the services from customers' comments, including data collection, and annotation for further predicting.
- Developed technical reports and presented a summary of the status of projects at every milestone.
- Worked on multiple projects concurrently.
- Trained junior team members and collaborated with internal and external scientists.

Data Scientist

Grenoble, France

French National Center for Scientific Research, Grenoble University

March to December 2016

- Performed quality assurance and control of the data to ensure the accuracy of the reports.
- Developed models using XGBoost, KNN, and CNN to estimate the strain and stress of the nanostructured biomaterials for therapeutic purifications and scaffolds in tissue culture.
- Determined nanostructures fractures of a biomaterial using Videos and Images analysis by MATLAB.
- Managed multiple projects concurrently.
- Developed reports of key observations and presentations.
- Led and trained junior scientists and collaborated with team members.

Education

Free University of Bozen-Bolzano

April 2015

Ph.D., Chemical Engineering (Nanotechnology applications)

Addis Ababa University

August 2001

BS Physics (minor in Math)

Additional Educational Training

- Deep Learning with PyTorch for Medical Image Analysis, Udemy | November 2021
- Predicting models for bioactives drug demand forecasting and shelf-life determinations (Swinburne University of Technology, Australia) | August 2013-February 2014