SOLOMON TESSEMA

Data Scientist and AI Developer
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Summary
Experienced Data Scientist and Artificial Intelligence Developer with over a decade of experience in data science, analytics, and Artificial Intelligence specializing in designing, developing, and deploying end-to-end projects in various industries including mortgage servicing, credit analytics, healthcare, and manufacturing. Skilled in Python, SQL, predictive modeling, feature engineering, and constructing data pipelines within cloud-based and on-premises environments. I have the skill for effectively translating complex technical concepts into actionable insights, enhancing risk assessment, customer experience, and operational efficiency through cross-functional collaboration.

EXPERIENCE

Metrocare Services

Data Analyst and AI Developer
September 2021 – Present | Frisco, TX

- Designed and implemented predictive models to advance patient segmentation, supporting targeted mental health treatments and improving service delivery outcomes. Leveraged Python, SQL, and cloud-based tools to develop reliable, robust ML models tailored for the healthcare environment.
- Worked closely with clinical teams and healthcare administrators to translate data insights into actionable strategies, delivering results that aligned technical insights with healthcare priorities.
- Developed and maintained real-time dashboards and performance reports using Power BI, providing continuous tracking of key metrics and ensuring stakeholders remained informed with actionable insights.

Caliber Home Loans

Data Analyst
March 2021 – September *2021 | Coppel, TX*

- Developed NLP solutions to analyze customer feedback and call center notes, revealing key insights into borrower sentiment and service quality.
- Defined and tracked mortgage-specific KPIs and built dashboards to monitor loan performance, default trends, and refinancing activity for portfolio management.
- Spearheaded predictive model development using Scikit-learning and TensorFlow, enhancing mortgage risk assessment and streamlining loan processing.

- Collaborated with engineering and product teams for seamless model integration, improving operational efficiency and customer experience

Lennox International

.NET Machine Learning Developer
June 2019 – August 2020 | Richardson, TX

- Developed predictive models for HVAC product lifecycle management, supporting product design optimization and market forecasting. Utilized ML.NET for machine learning models, leveraging libraries like MLContext for data preprocessing, ML.Transform for feature engineering, and Model Builder to build and refine models, providing valuable insights for engineering and manufacturing decision-making.
- Led the feature engineering process, employing ML.NET's Data Transformations to streamline data preprocessing, enhance feature selection, and improve model accuracy, which significantly optimized prediction precision and reduced error rates.
- Collaborated with data engineering teams to automate workflows, utilizing ML.NET's Data Loaders and pipeline capabilities to minimize manual intervention, increase operational efficiency, and maintain high data quality.
- Delivered actionable insights through Power BI dashboards, enabling stakeholders to access real-time visibility into critical product metrics and make informed strategic decisions.

Digital Matrix Systems
Data Analyst
January 2018 – December 2018 | Addison, TX

- Developed and deployed machine learning models to enhance financial risk management, achieving high accuracy in outcome predictions that supported risk assessment decisions.
- Built robust data pipelines using Python, Pandas, and SciPy to streamline data ingestion and quality control, ensuring high data integrity.
- Conducted hypothesis testing and A/B analysis to assess product features and credit scoring methods, contributing to data-driven improvements.
- Collaborated with engineering teams to resolve data inconsistencies, enhancing analytical reliability and supporting accurate credit score evaluations.

GXT LTD (Now LBJ Express)

Geospatial Software Developer
May 2014 – December 2017 | Richardson, TX

- Created custom software tools using Python and ArcGIS APIs to process field notes and geospatial data, enhancing the efficiency of telecom engineering workflows for underground utility analysis.
- Developed geospatial models to support the planning of fiber optic networks, integrating GIS data with engineering field notes for more precise network design and strategic planning.

- Built and managed SQL Server databases to streamline data access and support engineering processes, significantly improving data accessibility and operational efficiency.
- Utilized diverse geospatial data sources to deliver robust, data-driven solutions that optimized network planning and deployment accuracy.

EDUCATION

National University
Ph.D. in Data Science (in progress)

Indiana State University
MS: Mathematics
August 2022

Southern New Hampshire University
BA: Mathematics
August 2020

Dallas College
AS: Software Engineering
December 2017

SKILL SUMMARY

- **Data Science & AI:** Machine Learning, Deep Learning, Predictive Modeling, Natural Language Processing (NLP), Convolutional Neural Networks (CNN), Recurrent Neural Networks (RNN), Statistical Analysis, Feature Engineering
- **Machine Learning & AI Libraries:** PyTorch, TensorFlow, Scikit-Learn, Hugging Face Transformers, Pandas, NumPy, Matplotlib, Seaborn
- **Mathematics & Statistics:** Probability, Linear Algebra, Differential Equations, Mathematical Modeling, Advanced Statistics
- **Programming Languages:** Python, R, C#, Java, SQL, T-SQL, JavaScript, HTML, CSS, MATLAB
- **Data Analytics Tools:** Alteryx, RapidMiner, SAS, Excel
- **Data Visualization Tools:** Power BI, Tableau, SSRS
- **Database & Data Management:** SQL Server, MySQL, BigQuery, Data Warehousing, ETL Processes
- **Tools & Environments:** Cloud Environments (Azure & GCP), Jupyter Notebook, JupyterLab, Git, GitHub, TFS, Confluence, Jira, LaTeX