

Maaz Muhammad Khan

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Education

M.S. Computer Science (GPA 3.77)

January 2020 –December 2021

Cleveland State University

Relevant Coursework: Data Mining, Big data, Machine Learning, Artificial Intelligence, Data communication and Networks

B.S. Computer Science (GPA 3.39)

January 2015 – December 2018

Muhammad Ali Jinnah University

Relevant Coursework: Database Systems, Cloud Computing, Statistics, Algorithms and Data Structures, Object Oriented Programming, Human Computer Interaction, Web Development, Computer Architecture, Software Requirement Engineering, Software Quality Assurance

Work Experience

Business Intelligence Analyst\Data Engineer

Jan 2022-Present

New York Air Brake, Watertown, NY

- Designed & developed visual BI reports and dashboards to support management decision-making using Power bi and Tableau.
- Developed and automated data pipelines and ETL process and deployed new data models to make datasets readily-consumable by visualization tools using Snowflake and SQL Server.
- Drove efficiencies throughout the organization by automating business processes.
- Gathered and analyzed data from multiple sources to solve complex problems and prepared summaries of analysis and findings to management team.
- Worked with leadership to understand business needs and translate those into reporting solutions.
- Promoted the adoption of Business Intelligence tools throughout the organization
- Developed and maintain data quality standards and data governance policies.

Systems Administrator

May 2019 – Jan 2022

Lansing Board of Water and Light, Lansing, MI

- Designed and developed dashboards which helped managers in making critical decisions to drive employee productivity and resource utilization.
- Created dashboards with context and overlayed analytics and live, interactive, reports that easily compare and analyze assets using Microsoft Power-Bi
- Managed server, data repositories and the real-time data storage, normalization, analytics, and notification engine using Microsoft Azure SQL database.
- Summarized and filtered years of historical data and view alongside real-time data which allowed summary calculations
- Used python and SQL for ETL processes data cleansing, normalization, and transformation for operations analytics project.
- Also used Microsoft Azure DevOps for version control, reporting, requirements management, project management, automated builds, testing and release management capabilities for the entire application lifecycle(Agile Methodology).
- Worked on real-time data from grid and network devices for data analytics and applied machine learning to automate network response.

Research Assistant

Feb 2020 – April 2021

Artificial Intelligence and Computer Vision Lab, Cleveland State University, Cleveland, OH.

- Collected dataset by **web scraping** techniques using libraries like **selenium, beautiful soup, and** response.
- Stored unstructured using **Pymongo** and did **preprocessing/cleansing** using **Sk.learn and Opencv, numpy, pandas , skimage**
- Sliced data using **Sklearn.model_selection** for testing and training and added layers filters and activation to convolutional neural networks.
- Transformed data and developed a system which **classifies images** into subcategories with the help of **cnn using Pytorch & Torchvision**
- Extracted features from datasets using ICA, LBP, Hog, PCA , LDA, LLE, AE , and etc.
- Applied machine learning models like, CNN, KNN, Kmeans, SVM, Naïve Bayes, Regression, Gradient Boosting Algorithms
- Determined **the hidden relation between images and text** using text and image mining libraries Nltk and Gensim
- Worked on image recognition using **Tensorflow and Keras** for implementation of (CNN) with different initializers like Adam and SGD.

Data analyst/Engineer

May 2016 – July 2020

John Carroll University, Cleveland, OH

- Assisted data scientists in building sentiment analysis and Used python and SQL for text mining and artificial intelligence techniques.
- Extracted data from web sources using scraping and web crawling in python and created text corpora & SQL scripts & analyzed the data in MS Excel.
- Analyzed complex data sets and translated data into insights to drive key business decisions using **Tableau** and **Microsoft Power BI**.
- Implemented data mining and analytics solutions to various business problems.
- **Mined huge** textual dataset of online reviews of different movies using **NLtk and Genism** and Categorized data into POS, removed stop words
- Then, **lemmatized and stemmed** words & ran **LDA model** using **Spacy and Genism** and then calculated perplexity and coherence score.

Technical Skills

- **Analytic Development:** Python, R-programming, MATLAB, SQL, C, C++, C#, HTML, CSS, Java, XML
- **BI tools:** Tableau, Microsoft Power BI, Power Query, DAX SAP Analytics Looker, Google Charts, Qlik, SSRS, SSIS
- **Cloud Services:** AWS, Azure and Google Cloud, Snowflake, Informatica
- **Miscellaneous Tools:** SAP SAC, JIRA, Azure DevOps, SharePoint MS-Teams.
- **Artificial Intelligence & Analysis Methods::** Text comprehension, NLP, Classification, Pattern Recognition, Imaging Recognition and Detection, forecasting, clustering, Sentiment Analysis, Predictive Analytics, Decision Analytics, Association Analysis, Attribution modeling, Classification and Regression Trees (CART), SVM, Random Forest, GBM,, PCA, RNN, Regression, Naïve Bayes
- **Data Modeling:** Bayesian Analysis, Statistical Inference, Predictive Modeling, Stochastic Modeling, Linear Modeling, Behavioral Modeling
- **Python Packages:** NumPy, Pandas, Scikit-learn, TensorFlow, SciPy, Matplotlib, Seaborn, Keras, NLTK, Beautiful Soup, SciPy, StatsModels, PyTorch, OpenCV, Sweetviz, Theano, Bokeh, Plotly, Genism, Scrappy, kivy, Caffe2
- **IDE & Version Control:** Jupyter Notebook, Spyder, RStudio, Visual Studio, SharePoint, A/B testing GitHub, Git, Agile methodologies
- **Databases:** Oracle, MS SQL Server, Snowflake, MS Access Amazon S3, Azure, Mongo DB , My SQL, PostgreSQL and Hadoop, Pyspark .
- **Soft Skills:** Communication and presentation skills; teamwork; leadership, critical thinking, creativity, and problem-solving, accountability.