Aarati

aaratidhungel156@gmail.com, 605-728-7168

PROFESSIONAL SUMMARY:

- Experienced Azure Data Engineer with a strong background in programming languages, database migration, and cloud services.
- Proven expertise in building OLAP models, ETL, and BI platforms.
- Skilled in utilizing diverse tools for data visualization, reporting, and processing.
- In-depth knowledge of Microsoft Azure Cloud Services, Azure Synapse Analytics, and Databricks/Apache Spark Ecosystem.

TECHNICAL SKILLS

Programming Skills	Python, SQL, HTML, CSS5, JS, jQuery, AJAX
Frameworks & Library	PySpark, SparkSQL PyTorch , Beautiful soup,Selenium
Data Tools	Azure Data Factory, Azure DataBricks, Azure Synapse, Azure SQL, SQL Server 2012/19/22, MySQL, Function Apps, Logic Apps, Azure
Databases	SQL Server 2012/19/22, MySQL, SQLite, Oracle, Google BigQuery ,
IDE & Tools	Visual Studio Code, Visual Studio 2015/19/22, SSMS
Data Analytics	Power BI, Tableau, Power Query, Numpy , Pandas, Power Query, Seaborn, Matplotlib, Tableau, Excel, Jupyter, Azure Data Studio
Machine Learning & Algorithms	NLP, SVM, Gaussian Bayes, Linear and Logistic Regression, Search (Linear, Binary, Sorting), Scikit-learn, OpenCV, PyWavelts, Spicy signal,
DevOps & Source Control	Azure DevOps, GitLab, TFS, GitHub, Bitbucket, Teamforge, GitEye
Data Migration	Azure Data Lake, Azure Synapse, Azure SQL Database, Snowflake
Cloud Services	Microsoft Azure, AWS Cloud,
SDLC	Cabana Data, Waterfall, Agile

EDUCATION

- Master’s in Computer Science – University of South Dakota SD, USA (2023) - 4 GPA
- Bachelor's in Computer Engineering - Himalaya College of Engineering, Kathmandu, Nepal (2019) - 81% GPA

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WORK EXPERIENCE

Siyas llc **Feb 2022- Present**
Aldie, VA
Azure Data Engineer
Data Migration
Role and responsibilities

- Data migrations from multiple sources to/from Azure Synapse Database.
- Data Processing using Azure Data Factory, Function apps, Logic apps, Databricks and Azure services.
- Database (Azure synapse) query optimization.
- Azure Data factory (ADF) and Azure DevOps CI/CD Pipeline debugging and monitoring.
- Setting and managing event grid solutions using event-driven architectures.
- Managing CI/CD flow within Azure DevOps.
- Managing client requests and error handling/processing.
- Lead and coordinate offshore teams.
- Built and maintained the config tables for ETL activities.
- Implemented Unity Catalog to automatically capture user-level audit logs.
- Demonstrated data governance with Unity catalog and Microsoft Purview for data assets.
- Implemented Hadoop, Kafka and spark solutions with Azure HDInsight
- Controlling and granting database access with Azure Services.
- Performed data migrating of on-premise Data base to Azure Data Lake Storage using Azure Data Factory.
- Developed Spark applications using Spark - SQL in Databricks Notebooks for data extraction, transformation and aggregation.
- Data migrations from multiple sources to/from Azure sql Database and Azure storages (ADLS).
- Data Processing using ADF, Function apps, mapping data flow.
- Maintain SLA reports on the AZURE ecosystem
- Configured Self-Hosted integration runtime for On-prem servers.
- Alert configurations on data movements and other vital azure services.
- Built ingestion mechanism for multiple partner systems Dayforce/Braze/4PC/smartsheet/Clx/eyefinity/BrightPattern/AWS/Azure containers.
- Built reporting App using Power BI.
- Created python, C# and PowerShell scripts for data ingestion and programming as required.
- Implemented Docker for carrying the load and application and Kubernetes for running the application in multiple instances.

Tools Used: Python, Selenium, Beautiful soup, Numpy Pandas, Azure Data Factory, Apache Spark, Azure Data lakes, SQL, Excel, Google Sheet, Plotly, MySql Database, Power BI

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University of South Dakota **Aug 2022 – Jan 2023**
Vermillion, SD USA
Graduate Research Assistant
Prediction of freezing of Gait through analysis of EEG signal in Parkinson disease
Role and Responsibilities

- Collection of EGG signal throughout the different open source which include Kaggle, OpenNeuro, Google, Medium
- Processing of EGG signal data which include detrending signal, noise reduction, re moving outliers, identification of missing points, manual Inspection
- Decomposition of EEG signal into sub-band Alpha Beta, Gamma, Theta using low pass filter (FRI)
- Finding the coefficients of decomposed signal and use it to construct energy spectrum Which is an Image
- Converting Power spectrum Data into Pytorch tensor for Input of the network
- Define two class for the signal classification one normal, another before freezing of gait
- Development of Neural Network model using Pytorch library torch.nn initialize the model, loss function (cross-entropy loss), and optimizer. Train model for a specified number of epochs
- Train the model on 10 of epochs and training data set
- evaluating the model in test set and compute accuracy
- Optimizing the parameters for better performance: Increasing the number of epochs, changing the activation function from linear to sigmoid, Increasing the batch size from 5 to 10
- Hyper parameter tuning

Tools used: Python, Pytorch, Scikit-learn, Visual Studio, Spicy Signal

Global Institute for Interdisciplinary Studies **March 2022- July 2022**
Kathmandu Nepal
Data science Associate
Local Election Analysis 2022 and 2019
Roles and Responsibilities

- Collection of data from 100+ different open resources include Scraping from web, Extracting of pdf, survey
- Cleaning of data: conversion of format of data, identification of outliers, handling missing and wrong data
- Statistical Analysis, Descriptive analysis, Manual Analysis, Trend analysis,
- Uncovering actional insights or meaningful interpretation through data analysis which is shared with clients for article publication.
- Developing a data analysis pipeline Using Azure: Ingestion of data from various data source local online, Data storage in Azure data lake, Azure SQL Database, Azure data brick long with Apache spark for processing and transforming large-scale data sets,

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- Conduct a proof of concept (POC) on Microsoft Azure Service Fabric to evaluate its feasibility in enhancing the scalability and resilience of the current data processing infrastructure.
- Azure Data studio for querying, visualizing, and managing data across different platforms.
- creating interactive reports and dashboards to visualize data insights and share them with our client online khabar.
- Infer analysis for making data-driven decision for future.
- Collaboration with Teammates, supervisor,
- Use of Git version control for tracking progress and updates throughout the project
- Presentation of data with executive members and client representative.

Tools Used: Python, Selenium, Beautiful soup, Numpy Pandas, Azure Data Factory, Apache Spark, Azure Data lakes, SQL, Excel, Google Sheet, Plotly, MySql Database, Power BI

Links: [Election candidacy analysis][website]

Sikshya Technologyn **March 2020 - January 2022**
Kathmandu, Nepal
Azure Data Engineer Associate:
Supported multiple clients for various data driven projects.
Roles and Responsibilities

- Conducted seamless data migrations between Azure SQL Database and Azure storages, ensuring data integrity.
- Configured Self-Hosted integration runtime for On-prem servers, optimizing data transfer processes.
- Implemented Snowflake ELT methodologies, significantly reducing data processing time.
- Executed end-to-end ETL processes using Azure Data Factory, Databricks, Azure Synapse, T-SQL, and Spark SQL.
- Implemented Kafka and Azure Streaming services for real-time stream data ingestion and processing.
- Extensively performed data cleaning and transformations using Mapping data flow and Python scripts.
- Designed and optimized data storage strategies on Azure, utilizing services such as Azure Data Lake Storage, Azure Blob Storage, and Azure SQL Database.
- Implemented event-driven architectures using Azure Event Grid to handle data events efficiently.
- Conducted data profiling and implemented data quality checks to ensure accuracy and reliability of incoming data.
- Collaborated with Azure Cognitive Services for integrating AI capabilities like text analytics and image recognition into data processing pipelines.

Tools Used: Azure Data Factory, Kafka, Spark, Databricks