

MONIKA BAGYAL

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Website - <https://minsifye.github.io/portfolio/>

Software Engineer with 6-years of work experience building data solutions and interested in solving challenging problems & to learn new technologies along the way.

TECHNICAL SKILLS

Proficient: Python Programming, SQL, Tableau, Oracle PL/SQL, ETL pipelines, Unix Shell Scripting, pandas, numpy, seaborn, matplotlib, plotly, scikit-learn, Git, Informatica, Autosys(scheduling tool), Actimize, jupyter notebooks,

Moderate: NLP, AWS Spark, S3, EMR, pySpark, pytorch, fast-ai.

Concepts: Data Warehousing, Relational Database, Algorithms & Data Structures, Data Science, HDFS, MapReduce, Distributed Systems, Data Pipeline, Supervised and Unsupervised Machine Learning, Deep Learning.

WORK EXPERIENCE

UBS Bank, Bangalore, India

Senior Software Engineer, Nov 2016 – May 2017

- Developed multiple ETL mappings as part of data pipelines to load daily customer transactions in ACID compliant production env.
- Deploying algorithms to automate manual process of running ETL jobs to load months of data in the event of production issues.
- Designed and developed a data analysis project to provide a statistical report on payment data using changeable threshold.
- Supervised a team of 2 software engineers while ensuring to follow best practices of SDLC across multiple projects.

BNP Paribas, Mumbai, India

Senior Software Engineer, Dec 2014 – Oct 2015

- Built ETL pipelines to process 10+ millions of trades records, using data filtering, data manipulation and data transformation.
- Created a complex Scoring Algorithm to assign a risk score between 0 to 100, based on highly risked client's trade activity.
- Optimized existing models in production by refactoring code to ingest multiple regions data, documented the changes.
- Experienced in handling production issues, skilled in communicating with technical and non-technical groups.

UBS Bank, Bangalore, India

Software Engineer, Jul 2010 – Dec 2014

- Reduced project cost, by developing a solution to read unstructured data file (approx. 5 TB of data) using Shell Scripting.
- Optimized Informatica ETL mappings to improve performance and reduce data redundancy using data modeling concepts.
- Audited authorized user activity and thresholds changes in database using PL/SQL to report and keep system compliant.
- Implemented a Risk score filtering approach using SQL based on customer's KYC and historical data to produce new alerts.

ACADEMIC PROJECTS

Sparkify - Data Science Project on AWS Spark, Apr 2020

- Performed data analysis and feature engineering using pySpark on music streaming data for customer churn problem.
- Trained a model using Gradient boosting classifier to achieve a higher F1 score on AWS Spark to process 12GB of data.

Disaster Response Model, Mar 2020

- Analyzed disaster data to build a model for an API that classifies 26000 disaster messages. Built a webapp using Flask.
- Build an ETL & ML pipeline, to perform text processing using NLP and load it into SQLite, to predict 36 disaster categories.

Recommendations with IBM, Mar 2020

- Generated individual article recommendations for similar users by using collaborative filtering approach.
- Predicted user ratings by applying SVD to evaluate overall performance for new recommendations.

Hackathon - NLP project on Yelp Reviews Data, Feb 2020

- Project idea was to provide key insights from reviews to help customer make decision faster.
- Generated visualizations after text cleaning, normalization, tokenization, generated bag-of-words etc.
- Presented this project to 300+ people during All Women Hackathon (Pearl Hacks) at UNC Chapel-hill.

EDUCATION

University of North Carolina at Charlotte

Charlotte, NC, Jan 2021

Master's in Computer Science – Data Science Concentration

Coursework: Computer Vision, Algorithms & Data Structures, Cloud Computing, Machine Learning, Visual Analytics, Big Data Analytics.

Birla Institute of Technology & Science

Rajasthan, India, Nov 2014

Master's in Software Engineering

HNB Garhwal University

Uttarakhand, India, Jun 2010

Bachelor of Computer Applications

Certifications

- Data Scientist Nanodegree by Udacity (Apr 2020).
- AML and KYC by Indian Institute of Banking & Finance (Oct 2013).