

# AAYUSH MAKHARIA

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## EDUCATION

### University of Illinois at Chicago

Master of Science in Computer Science

Relevant Coursework: Data Science, Database System, Information Retrieval, Data Mining, Data Visualization, Business Intelligence, Data Modeling and Data Integration.

January 2021 - December 2022

Chicago, Illinois

### Thadomal Shahani Engineering College

Bachelor of Engineering in Information Technology

Relevant Coursework: Data Structures and Analysis, Advanced Database Management System, Advanced Data Management Technology, Data Mining and Business Intelligence.

August 2016 - October 2020

Mumbai, India

## PROFESSIONAL EXPERIENCE

### Data Analyst, University of Illinois - Chicago

August 2021- August 2022

- Generated reports and charts of student grades using MS Excel and Data visualization tool Power BI.
- Performed data processing and exploratory data analysis (EDA) related to student's performance and progress using MySQL and Python.
- The gained insights from A/B testing helped improve services provided by the university and overall efficiency of error handling in grading by 25%.

## TECHNICAL SKILLS

**Programming Language:** Python, R, SQL, MATLAB, Apache Spark.

**Analytical Tools:** Tableau, Power BI, Alteryx, Microsoft Excel.

**Libraries:** NumPy, Matplotlib, Sklearn, Pandas, TensorFlow, ggplot2, Tidyverse, Keras, and seaborn.

**Technologies:** AWS, Azure, Flask, MySQL, Microsoft SQL Server, MongoDB.

**Developer Framework:** Jupyter Notebook, MySQL Workbench, R Studio, PyCharm, Power BI, Visual Studio Code.

## PROJECTS

### Spotify Data Analysis [Link](#)

August 2022 – December 2022

- Processed 100,000 data points from Spotify using Spotipy API, exploratory data analysis (EDA) of data generated insights and patterns for the regional charts during Covid-19 pandemic.
- Analyzed results should the listening hours increased by 18% and users were listening to music with positive emotions.
- Implemented data pipelines to provide flexibility and improved process optimization by 25%.

### Web Crawler and IR System [Link](#)

August 2022 – December 2022

- Deployed a web crawler function for 3000 web pages to generate a JSON PageRank file.
- Implemented Python to preprocess the PageRank file and Cosine Similarity to generate page score based on frequency.
- A GUI was used to process user search query and generate a list of URLs that align closely with the user input.

### Hand Gesture Recognition [Link](#)

January 2022 – May 2022

- Developed an interface using Python to perform System functions based upon gesture recognition.
- Implemented libraries such as OpenCV, Keras and TensorFlow using Python to process 53,620 images for training and generating desired output.
- The deep learning model gives an accuracy of 86.39%.

### International Football Analysis [Link](#)

September 2021 – December 2021

- Performed hypothesis testing to predict result for home team or away team based on 150 years of data.
- Performed exploratory data analysis (EDA) on the dataset to generate probabilistic and statistical visualizations using R.
- Implemented a linear regression model to predict home win, away win or a draw using caTools library.

## CERTIFICATION

AWS Cloud Practitioner 2023

PL 300: Microsoft Power BI Data Analyst

Azure Databricks