## Akanksh Gatla

8059 Oak Meadow Dr, Dublin, OH 43016

### Education

#### State University of New York, Buffalo

August 2022 - December 2023

Master of Science in Computer Science

Buffalo, New York

### Technical Skills

Languages: Python, R, Pyspark, Javascript, HTML, CSS, SQL, Verilog

Developer Tools: Numpy, Matplotlib, Tensorflow, Keras, OpenCV, Visual Studio, Jupyter Notebook

Frameworks: Hadoop, Spark, Flask, Django

Cloud/Databases: MongoDb, Relational Database(mySql), PostgreSQL, AWS EC2, Azure Databricks

Data visualization: Excel, Tableau, Power BI

# Experience

The Sparks Foundation, Intern | Predictive Modeling, Python & R, Data Analysis

January 2022 - May 2022

- Implemented machine learning models in Python and R to forecast student performance, achieving an accuracy rate of 84% and contributing to a robust predictive framework.
- Conducted data cleaning, preprocessing, and feature engineering to ensure data integrity, facilitating accurate analysis and insights generation.

## Projects

Retrieval Based Chatbot | Python, Flask, VM instance(GCP), API based Scraping

September 2023

- Gathered data from the Wikipedia open-source platform, curating a dataset to train, fine-tune and provide chatbot's responses for specific topics of interest.
- Implemented a Naive Bayes classifier to differentiate between search results and generic queries utilizing bag of words and TF-IDF features, achieving 85% classification accuracy on a test dataset.
- Co-led the deployment of a Flask-based chatbot interface on a cloud platform, resulting in a 9% improvement in MAP score through collective feedback.

Global Super Store - CRUD APP | Python, PostgreSQL, Triggers, Functions, Views, HTML, CSS

April 2023

- Developed a robust e-commerce platform with real-time data tracking, automated cart updates, and enhanced user experience by improving access times for saved listings by 20%.
- Implemented strategic indexing on the PostgreSQL database, resulting in a significant reduction in query execution time, enhancing overall system performance for at least 10 queries.
- Created a user-friendly web interface leveraging HTML and CSS, providing intuitive to visualize and analyze data.

#### Computer Architecture 8-bit Processor | Verilog, FPGA-board

March 2023

- Successfully designed and implemented an 8-bit processor using Verilog and Xilinx Vivado, which included simulation and synthesis of the Verilog code and testing of the resulting FPGA hardware.
- On Top was assigned to handle and guide other students. Demonstrated programming by independently completing a complex project utilizing tools such as **Vivado** and Verilog.

Health Care Application | Python, Flask, AWS EC2, Tableau, HTML, CSS, JavaScript, Machine Learning

April 2022

- Accomplished Random Forest Classifier for disease prediction, achieving 89% in F1 score.
- Developed backend deploying Flask, creating API for data processing. Designed an interactive web interface with HTML, CSS, and JavaScript.
- Hosted application on AWS EC2 instance operating Putty, with a Tableau dashboard for patient statistics integration.
- Guided a team of Five to successful completion of a group project.

### Certification

Analytics Vidya

## Data Analysis with Python: Zero to Pandas

Certificate Link: MFQTSMBTHA

Certificate Link: bywxlo1yqg

Jovian

November 2023

- Proficient in reading/writing CSV data, querying, filtering, sorting data frames, grouping/merging/aggregating data.
- Real-world project demonstrating ability to parse, clean, analyze data using Numpy and Pandas, and create visualizations with Matplotlib and Seaborn.

#### Introduction to Data Science

May 2020

- Hands-on experience with Jupyter for data extraction, data cleaning, and building machine learning models.
- Executed linear regression, logistic regression, decision trees, and random forests on multiple real-world projects like NYC taxi trip duration prediction.