

ZAID PATEL

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EDUCATION

New York University, Tandon School of Engineering, New York, NY

September 2021-May 2023

Master of Science in Computer Science (GPA: 3.11/4.00)

Coursework: *Machine Learning, Database Systems, Information Visualization, Cloud Computing, Data Mining, Design & Analysis of Algorithms*

University of Mumbai, Mumbai, India

August 2017-May 2021

Bachelor of Engineering in Computer Engineering (GPA: 8.62/10.00)

Coursework: *Big Data, Artificial Intelligence, Data Structures, Applied Mathematics, Discrete Mathematics, Theory of Computation, Natural Language Processing, Management Information Systems, Object Oriented Programming*

TECHNICAL SKILLS

- **Programming Languages:** Python (Pandas, NumPy, Seaborn, Scikit-learn, Matplotlib, TensorFlow, PySpark), R (dplyr, tidyr, stringr, ggvis, ggplot2, Lubridate), D3.Javascript, HTML, PHP, C, C++, Java (Basic)
- **Databases:** MySQL, Oracle, PostgreSQL, DynamoDB
- **Tools:** Tableau (Visualization), Oracle Data Modeler (Database Modeling), AWS (Lex, Elasticsearch, Lambda, API, SQS, S3)
- **Certifications:** Python for Everybody-UMichigan, Data Science Methodology, Open source tools for Data Science- IBM

WORK EXPERIENCE

TechSmartSys Pvt. Ltd., Data Science Intern, Pune, India

April 2020-June 2020

- Performed Exploratory Data Analysis by plotting sound signals, Fourier Transforms, Mel Frequency Cepstrum Coefficients and pre-processed data by eliminating 90% dead spaces within sound clips for training neural network
- Developed celebrity voice recognition system by training 83% accurate model using **Regional Convolution Neural Networks** on pre-processed VOX Celebrity dataset

PROJECTS

NBA Players Analytics - AWS|Comprehend | Glue | Athena | QuickSight | Cognito|SNS

February 2022 - May 2022

- Built website displaying overall analysis of ranking of NBA players obtained through tweets using twitter API & processed sentimental analysis on tweets with **AWS Comprehend**
- Employed **QuickSight** to visualize players analysis & delivered updates to users about their subscribed players using **SNS**

Movie Recommendation System - Data Mining | Python

February 2022 - May 2022

- Programmed Recommendation System for movies with **Collaborative filtering** approach using past ratings history of users & choice of genres
- Made recommendations via ratings provided by users for various movies in MovieLens 100k dataset using **Expectation Maximization Algorithm** with RMSE of 2.51 & **Apriori Algorithm** yielding support = 1.0

Smart Photo Album - AWS|Rekognition|ElasticSearch|Transcribe

March 2022- April 2022

- Implemented a photo album web application to search photos using natural language text and speech recognition
- Used **Amazon Lex**, **ElasticSearch**, and **Rekognition** to create an intelligent search layer to query photos for people, objects, actions, landmarks and more

Dining Concierge Chatbot - Python|AWS|DynamoDB|ElasticSearch|Lex

January 2022- March 2022

- Built a dining concierge chatbot using **Amazon Lex** integrating with Chat API & lambda functions followed by creating **ElasticSearch** instance & assembled suggestions module decoupled from **Lex** Chatbot
- Scrapped 5000+ restaurant data in Manhattan with Yelp API and stored in **DynamoDB** database

Flight Insurance Booking System - SQL|MySQL|PHP

September 2021-December 2021

- Developed web pages using **PHP** to perform CRUD on database designed in BCNF to store, retrieve, access data records & optimizing functions, triggers & prevention techniques for **SQL injection** through stored procedures

Visualizations - Price of Rent across the US - D3.js

September 2021-December 2021

- Formulated questions about variations in housing rent prices in the US were eventually answered using effective visualizations dynamic area charts, multiple area charts, line graph, scatter plots using **D3.js**

Real-Time Object Detection - Deep Learning|Android Studio

August 2020-May 2021

- Conducted **Exploratory Data Analysis** by plotting bar charts for distribution of objects across images and class wise bounding box area distribution to calculate maximum number of boxes in an image

- Executed & optimized python code to train data using deep learning algorithms. AUC for **R-CNN & YOLO** stood above 93%. Finalized R-CNN model to be deployed with android application forged using Android Studio

LEADERSHIP ACTIVITIES

CESA (Computer Engineering Students' Association), Chairperson

August 2020-May 2021

- Led and managed national-level annual technical festival with over 1500+ participants. Increase of 600+ participants

A2Z Tutorials, Founder & Owner, Mumbai, India

June 2018-May 2021

- Tutored 100+ students of grades 8-12 for Mathematics & programming languages Python, C, C++
- Managed working of institution alongside conducting various events and administered marketing strategies to support its growth. Tripled revenue within 3 years due to consistent rise in number of admissions received