TAHER PARATHA

2318 Markland St, Irving, Tx, 75060♦ 9723527989 ♦ txp9730@mavs.uta.edu

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PROFESSIONAL SUMMARY

- Data professional with over 3 years of experience in data and aerospace field.
- Excellent exposure to machine learning techniques like KNN, Decision trees, Naïve Bayes, Random Forrest, SVM, Logistic regression, and K-means clustering.
- Can Handled large structured or unstructured data with Spark framework either in Pyspark or Databricks environment.
- Experience writing complex SQL queries to query data and validate data movements.
- Good knowledge of executing SQL, PL/SQL and embedded SQL for update transactions, schema creation, and trigger functions.
- Have worked extracting data from Sequential files, XML files, CSV files, transforming and loading it into the target Data warehouse.
- Excellent Experience with Data cleaning and transformation process using pandas, Excel, etc.
- Good exposure to data analysis and visualization techniques.
- Several projects on EER design, schema design, table creation in RDBMS servers like Oracle and MySQL.
- Working knowledge of data migration on AWS s3 and writing scripts to lead data into tables in Redshift from s3 buckets.

SKILLS

- Tools – Python, MATLAB, R, C, C++, SQL, MySQL, Oracle, Embedded SQL, Pandas, Numpy, Advance Excel
- Data Visualization – Tableau, Power BI, Matplotlib, Seaborn, Advanced Excel
- Machine/Deep Learning – OpenCV, PyTorch, Yolo V2, Scikit learn
- NLP – Topic Modelling, Word embedding, Named Entity Recognition using Spacy
- Cloud – AWS (Redshift, EMR, EC2, S3), Google Cloud
- Big Data Tools – Hadoop 3.0, Map/Reduce, Spark, Pyspark

WORK EXPERIENCE

Graduate Teaching Assistant, Jan 2022 to Present

The University of Texas at Arlington, Arlington, TX

- Assisted in managing a class of around 150 students.
- Provided help and assistance to the students of the course.
- Gave tutorials on Python, Pandas, Numpy, data ETL process to over 100 students.
- Designed engaging and interesting programming assignments which helped students learn the basics of data science.

- Helped in designing and grading quizzes and HWs for the class.

Environment: Python, Scikit learn, Advanced Excel, matplotlib, MS Teams, Numpy, Pandas.

Data Research Engineer, Jan 2020 to June 2021

IIT-Bombay, Mumbai, India

- Worked on auto-landing and Take-off by implementing computer vision to detect landing pad from drone video feed.
- Developed, trained and evaluated deep-learning model using YOLOv2, Label Box, AWS SES, AWS SNS, OpenCV 3.4 and Python 3.6 to perform video analytics to detect objects via onboard processor Nvidia Jetson Nano.
- Trained mobilenetSSD open-source custom object detection model which supports with high mAP with over 20k annotated images to detect 5+ object through the video feed.
- Analyzed the flight data from test flight to find the most optimized flight parameters using machine learning algorithm.
- Designed and fabricated the payload bay for the MAV to house the processor and the controller.
- Collected and analyzed data from available fixed wing drones and multicopters to find the right combination of design parameters to be set to build the VTOL craft.
- Create motor database from available online scattered sources and stored in AWS S3 data lake for further processing
- Created visuals from the motor database using matplotlib to help in easy decision making.

Environment: MATLAB, Python, MySQL, Scikit learn, Advanced Excel, OpenCV, ROS, Yolo V2, AWS, matplotlib.

Design Optimization Engineer, Aug 2018 to Jan 2020

Southern Electronics – Bangalore, India

- Created decision making algorithms for the conceptual design parameters of the MAV.
- Used reinforcement learning to train MAV to identify a safe place to self-land and self take-off.
- Experience in optimizing algorithms for CUDA for best utilization of training times.
- Used the optimizing algorithms to find the parameter that suit the mission best.
- Create automated reports for weekly and monthly departmental meetings using the project data available on the online servers.
- Made substantial contributions in simplifying the development and maintenance of MAVs by creating SOPs and design tables.

Environment: Ansys FLUENT, XFLR5, MATLAB, Advanced Excel, Python, R, MathCAD, MySQL.

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Library Database Application

- Created a university library with approximately 16,000 members, 100,000 titles, and 300,000 volumes.
- Created ER/EER diagram of the database.

- Converted the ER/EER diagram to relational database schema.
- Fabricated the data for the library using python and random functions.
- Performed ETL operations using python to the SQL tables on a MySQL server.
- Performed daily and weekly analysis and automated reports on this data from the server.
- Created an application for trigger functions and database update transactions on the data using python embedded SQL.

Environment: Python, Pandas, Advanced Excel, MySql server, Embedded SQL.

Covid-19 Database Dashboard

- Created a relational database schema for the covid-19 data on Oracle.
- Transformed and cleaned the raw data from CSV file using python.
- Performed ETL operations on almost a million rows of data from Oracle RDBMS Server using python embedded SQL.
- Created a dashboard to report the highest and lowest density states of positive case by date, density by deaths, top sensitive counties, top states by vaccination states.

Environment: Python, Pandas, Advanced Excel, Oracle RDBMS, Embedded SQL.

Salary Predictor

- Created a salary predictor to predict salary based on several features of a given person.
- Performed ETL operations on data with more than 500k rows and transformed the features using One Hot Encoding.
- Created 6 different models using machine learning algorithms like KNN, Decision Tree, Naïve Bayes, Logistic regression, etc.
- Achieved a top accuracy on test data set of almost 85%.
- Model was verified using 3-fold verification and achieved a performance of 76%.

Environment: Python, Pandas, Numpy, Scikit Learn, Oracle RDBMS, Embedded SQL.

CERTIFICATIONS

- Ultimate AWS Certified Cloud Practitioner – 2022
- Machine Learning A-Z™: Hands-On Python & R In Data Science – 2022
- Tableau 2020 A-Z: Hands-On Tableau Training for Data Science – 2022
- Spark and Python for Big Data with PySpark, Udemy – 2022
- Introduction to Big Data by UC San Diego, Coursera - 2022
- Data Science Training Course by Udemy – 2021
- Project Management by IIT, Roorkie – 2018
- Soft Skills by IIT, Roorkie – 2018
- IET Pinkerton, Bangalore – 2011

EDUCATION

- MS in Data Science (CGPA **4.0/4.0**) – University of Texas at Arlington, Tx
- Master of Technology (CGPA **8.03/10**) – DIAT, Pune, India
- Bachelor of Engineering (CGPA **8.45/10**, **University Gold Medalist**) – Jain University, Bangalore

ACCOMPLISHMENTS

- Awarded **Graduate Teaching Assistantship** for stellar academic performance.
- Awarded **gold medal** in academics for achieving top rank in the university.
- Represented the university and the country at an **international event** held at Los Angeles, CA.
- Won numerous national level design competitions and finished top 10 in the international competition.
- Won **first prize** as an orator at intercollegiate BRICS summit.
- Represented my company at **two separate international** level AeroIndia event held in Bangalore, IN.
- Was in the **top 5%** in the nation in the national graduate level competitive exam.