VAISHNAVI RAJPUT

Brooklyn, NY - (332) 207-9599 - vrjpt11@gmail.com - linkedin.com/in/vaishnavirjpt10 - github.com/vrjpt10 - vrjpt10.github.io/

PROFESSIONAL EXPERIENCE

Development Data Analysis Intern - Block Convey, New York — Jun 2023 - Present

- Devised a Convolution Neural Network for brain tumor detection and classification with 92% accuracy
- Collaborated with cross-functional teams to build an advanced machine learning system integrated with blockchain technology to improve data security for a healthcare industry client

Data Science Intern (Remote) - British Airways, New York — Feb 2023 - Mar 2023

- Developed a pipeline for data cleaning, analysis, and a statistical model which enhanced personalized marketing strategies by 85%
- Employed web scraping to extract 70 GB of review data, and performed sentiment analysis leveraging NLP techniques to identify 4 key areas of concern

Graduate Assistant - NYU, New York — Oct 2022 - May 2023

- Assisted the Professors to administer over 300 students during doubt-clearing sessions and exams for undergrad courses - Data Structures and Algorithms and Introduction to Programming

Software Engineer - YM Grad, India — Jun 2020 - Jul 2021

- Created an administration system for service selection, with CRUD operations, and upgraded SEO ranking by 200%

ACADEMIC PROJECTS

Recommender System (Python, Apache Spark, Hadoop) — Mar 2023 - May 2023

- Built a music recommendation system on the ListenBrainz dataset by fabricating a popularity baseline model and collaborative filtering techniques; improved efficiency by 10% reduction in errors
- Incorporated light FM and fast search to compare single-machine execution with cluster-based execution achieving a 20.6% reduction in model fitting time and a 30.1% reduction in accuracy calculation time
- Deployed and fine-tuned alternating least square method in Spark to learn latent factor representation of users to increase recommendation precision by 5.7%

Churn Prediction (Python, Apache Spark, Hadoop, Flask) — Apr 2023 - May 2023

- Performed EDA and feature engineering on telecommunication data to identify 8 factors influencing customer churn
- Leveraged decision tree, random forest classifier, and PCA to construct a prediction model with 94% accuracy
- Designed a Flask application to predict customer churn confidence level and enable real-time access to the churn prediction model

Mu-GAN: Generating Adversarial Modified Music (Python, TensorFlow, Keras) — Aug 2022 - Dec 2022

- Formulated a DC-GAN extension architecture to generate novel music of a particular genre or modify existing music to a new genre using 7000 songs from GTZAN, FMA, and GACMIS datasets
- Produced adversarial modified genre transferred clips of duration more than 30 seconds that can bypass copyright claims and fine-tuned synthesized music for 7 distinct genres employing Librosa library

ETL System Development for Data Warehousing (SQL, MySQL, PostgreSQL, Tableau) — Aug 2022 - Dec 2022

- Constructed a web application for an inventory management system and achieved efficiency by reducing the turnaround time by 12% using 3NF Normalized queries and Query Optimization
- Implemented ETL processes to automate data extraction, data transformation, and loading in PostgreSQL data warehouse and executed data visualization using Tableau

EDUCATION

New York University - New York, USA
Master of Science in Computer Engineering — Sep 2021 - May 2023

Dr. A. P. J. Abdul Kalam Technical University - Noida, India
Bachelor of Technology in Electrical and Electronics Engineering — Aug 2016 - Sep 2020

TECHNICAL SKILLS

Programming Languages: Python, SQL, Java, HTML, CSS, C++, PHP
Libraries and Frameworks: Numpy, Pandas, Matplotlib, Seaborn, Pytorch, Sklearn (Scikit-learn), Scipy, OpenCV, Pyspark, NLTK
Big Data Tools: Apache Spark, MapReduce, Hadoop
Other Tools: Tableau, Microsoft Excel, Git, DataProc, AWS SageMaker, MATLAB
Databases: MySQL, PostgreSQL, PL/SQL
Data Science & Analysis: Data Warehousing, Data Analytics, Data Modeling, ETL Processing, Data Visualization, Database Querying