

PIYUSH DEEP

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EDUCATION

University of Southern California, Los Angeles, United States

GPA: 3.81/4.0 May 2024

Master of Science in Applied Data Science

Relevant coursework: Foundations of Data Management, Machine Learning for Data Science, Deep Learning and Its Applications, Foundations and Applications of Data Mining, Database Systems, Introduction to Deep Learning for Data Science, Research Methods and Analysis for User Studies, Fairness in Artificial Intelligence

VIT University, Vellore, India

GPA: 3.71/4.0 May 2020

Bachelor of Technology in Electronics and Communication Engineering

WORK EXPERIENCE

UNIVERSITY OF SOUTHERN CALIFORNIA

Graduate Research Assistant: Skills: Data Science, Data Analytics, AI, NLP, ML, Python, LLM

May 2023-May 2024

Graduate Teaching Assistant: Skills: Data Mining, Algorithms, AI, NLP, ML, Python, LLM

Aug 2023-May 2024

Viterbi Student IT Worker: Skills: Provide technical support for hardware, software, and network issues

May 2023-May 2024

STELLAR MEDIA GROUP

Data Engineer, LA, CA

Dec 2022-May 2024

- Develop and model **Tableau** dashboards to improve reporting efficiency in **supply chain analytics**. This initiative results in a 50% enhancement in reporting efficiency and an 80% reduction in manual errors.
- Designed an **NLP** tool to analyze customer feedback to derive actionable insights from **sentiments** and themes, enhancing marketing strategies using **Python** and libraries like **BeautifulSoup**, **VADER**, **LDA**, **NLTK**, and **spaCy**.

ACCENTURE

Data Engineering Analyst, Bangalore, India

Aug 2021-Aug 2022

- Led analytics projects and developed **Tableau** dashboards, achieving a 10% increase in business growth and a 7.2% reduction in material waste, contributing to revamped **supply chain** management.
- Modeled an **NLP** project to automate customer service **data analysis** for a **pharmaceutical** client, leveraging **BERT**, **API** calls, and **SVM & RF classifiers**, boosting response accuracy and efficiency by 30%.

HSBC

Software Engineer(Data Engineer), Hyderabad, India

Sep 2020-Aug 2021

- Managed **data extraction** and **security efficiently**, leading to a 20% error reduction, a 40% decrease in unauthorized access, and a 50% increase in report generation when managing data across multiple platforms.
- Addressed script validation and data dictionary creation inefficiencies by developing **Python** automation scripts and overseeing **SQL** automation. This initiative improved team efficiency by 29.7% and accelerated development by 30%.

ACADEMIC PROJECTS

Multi-Modal Cancer Detection | *Deep Learning, Google Colab, Kaggle*

- Led innovative development of DL models for accurate cancer detection across various imaging modalities, fine-tuning algorithms such as VGG19 and EfficientNetB0 and adapting BiT for diverse datasets, achieving up to 100% accuracy.

Automated Extraction of Reproduction Steps from Android Bug Reports | *Deep Learning, Google Colab*

- Designed and executed a crawler to process 70,000+ GitHub Issue Reports, employing BIO labeling with BERT and CRF for named entity recognition, culminating in an F1 score of 97.65%.

Enhanced Recommender System Development | *Hybrid Model, XGBoost Optimization, Feature Engineering*

- Engineered an advanced hybrid recommender system on the Yelp dataset, integrating Item-based CF with XGB models and applying emotion analysis and Grid Search CV, attaining an impressive RMSE of 0.88.

Brain-Controlled Wheelchair | *Deep Learning, Google Colab*

- Developed a DL model for EEG signal-based wheelchair control, enhancing usability and compatibility with Raspberry Pi through transfer learning and feature normalization on datasets from volunteers, ensuring precise device movement.

SKILLS

- Data Science Skills:** Python, MySQL, MATLAB, PySpark, Machine Learning Algorithms, Deep Learning, Artificial Neural Networks, NLP, Data Management, Digital Image Processing, Probability, Statistics, Pandas, NumPy, Keras, BeautifulSoup, Seaborn, Matplotlib, Scikit-Learn, TensorFlow, SciPy, Pytorch, Scrapy, OpenCV.
- ML/Data Management Tools:** Tableau, Tableau Prep Builder, PowerBI, Power Query, GCP (Big Query), IBM Watson Studio, AWS, HUE, HDFS, DBeaver, Okera, Impala, Firebase, Curl (access Firebase DB via REST and Web API), Jupyter-Notebooks, Github.

CERTIFICATIONS

IBM Data Science Specialization, Applied Data Science Specialization, Deep Learning Specialization Deeplearning.ai, Northwestern University 101: Leading with Analytics, Applied Data Science Capstone