Prabesh Pokharel

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SUMMARY

Seeking Machine Learning roles to put two years of learnings into solving real-world industry problems and to improve my skills. Adept at classification, clustering, web scraping, neural networks with a strong mathematical background.

EDUCATION

UNIVERSITY OF CALIFORNIA, SAN DIEGO

Bachelor of Science in Mathematics-Computer Science, 3.55 GPA, Anticipated Graduation: Dec 2021

- **Relevant Coursework:** Applied Linear Algebra, Statistical Methods, Supervised/Unsupervised Machine Learning, Neural Networks and Deep Learning, Advanced Data Structures, Algorithms.

RELEVANT PROJECT EXPERIENCE

DETECTING COVID-19 USING CHEST X-RAYS

- Designed a convolution neural network and implemented various pre-trained models using transfer learning to predict COVID-19 using the Chest X-Rays images of the patients with an accuracy of 88% overall.
- Augmented image data to prepare for the neural network to train on.

NLP – PREDICTING GENRES USING MOVIE PLOT SUMMARY

- Collaborated in a team of 3 to implement binary/multi-class classification algorithms leveraging scikit-learn to classify movie genres. 83% accuracy on the top 10 genres using supervised learning methods.
- Utilized the NLTK python library for the normalization process and TF-IDF vectorization to create a vectorized representation of the text.

Handling Imbalanced Dataset for a classification task

- Devised oversampling method to solve imbalanced dataset problem.
- Utilized several supervised learning algorithms with extensive hyperparameter tunning and 5-fold cross-validation to classify occupancy with the testing F-1 score of 98.24%.

EVA CALCULATOR

- Developed web scraper to parse financial data using Beautiful Soup, Selenium, Pandas library.
- Computed Economic Value Added of around 7700 publicly traded companies worldwide.

WORK EXPERIENCE

UCSD COGNITIVE SCIENCE DEPARTMENT

Instructional Assistant for Introduction to Unsupervised Learning Algorithms Class *Sep 2020 – Present*

- Holding Discussion sessions and Office hours to assist 50 students with course concepts.

TECHNICAL SKILLS

- Programming: Python (Pandas, NumPy, Matplotlib, Jupyter Notebook, scikit-learn, PyTorch), C++.
- Frameworks and Tools: Git, SQL, LaTeX.