Palak Jain

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Website ⬈

Indianapolis, IN

Data Science enthusiast with 3 years of experience in Analytics. Proficient in creating machine learning and neural network models using Python. Hands-on experience in NLP and Computer Vision for identifying patterns and extracting valuable insights.

EDUCATION

Master of Science, Applied Data Science, Indiana University Purdue University Indianapolis, **(GPA: 3.8/4.0)**   **January 2021 - Ongoing**
Bachelor of Engineering, Electronics and Telecommunication, Devi Ahilya University, India, **(GPA: 7.2/10.0)**   **July 2014 - May 2018**

EXPERIENCE

Data Science Excellence Program Intern   **June 2022 - August 2022**
Verisk- Claims Insight and Analytics   **Jersey City, NJ**

- Implemented multiple CV models to detect text and face in scene images to protect Personal identifiable information for claims data.
- Proposed an OpenVino tookit based computationally efficient CV model with high recall of 0.85 and speed of ~20 images per second.
- Business Impact Project: Saved cost of resurveying 20K+ commercially insured underwriting by extracting and combining information from Verisk and its acquired companies.

Research Assistant || National Science Foundation(NSF)   **January 2021 - Ongoing**
Indiana University Purdue University Indianapolis   **Indianapolis, IN**

- Extracted Causal relationships from 1 million+ sentences using semantic and syntax cues and captured the strength of the relationship.
- Created RNN model using BiLSTM and PyTorch to determine contextual information in both forward and backward directions with Receiver Operator Characteristics (ROC) of 0.98.
- Employed pre-trained language models for cause-effect extraction, fine-tuned with CauseNet data which improved F-score by 8%.
- Discovered fact localization and edited BERT's parameter to update incorrectly predicted or obsolete facts.

Data Engineer   **January 2019 - November 2020**
Infosys Limited   **Hyderabad, India**

- Catalogued financing data for e-contract utilization from Online Transaction Processing (OLTP) servers and flat files using Informatica.
- Designed and tested 350+ Extract Transform Load (ETL) Mappings, Workflows using Informatica Powercenter with 150+ tables.
- Optimized SQL queries for unit testing, enhancing performance of ETL process by 200% using partitioned tables and parallel processing.

TECHNICAL SKILLS

Languages	Python, R, Core Java, HTML
Database Management	RDBMS, MySQL, SQL Server, Big Data, Hadoop, Informatica, Microsoft Access
Analytics Tools	Power BI, Tableau, Microsoft Excel, Microsoft PowerPoint
Statistical Skills	Statistical Modeling, Hypothesis Testing, Predictive Modeling, Exploratory Data Analysis, Data Visualization, ML, DL, Data Mining, Neural Networks, Word Embedding, Dimension Reduction, Parameter Optimization, Natural Language Processing, Computer Vision. (Libraries and Frameworks: Numpy, Pandas, Scikit-Learn, NLTK, Gensim, Spacy, OpenCV, Pytorch, Tensorflow)

PROJECTS

Pre-Owned Car Market ⬈ **| Data Visualization | Prediction Model | PowerBI | Flask | Heroku**
- Created interactive PowerBI dashboard to visualize and investigate car price variation with 10+ features of the car.
- Deployed prediction model on Heroku cloud platform for online estimation of pre-owned car prices.

Diabetes Onset Prediction ⬈ **| NLP | Pytorch | Artificial Neural Networks(ANN) | GPU**
- Determine the patient's diabetic condition based on rapidly diagnosable measures including Blood Pressure, Glucose level, and BMI.
- Developed an ANN classification model using PIMA Indian Diabetes Dataset and PyTorch framework resulting in accuracy of 80.5%.

Tweet Sentiment Extraction ⬈ **| NLP | Keras | Word Embeddings | Anaconda | Recurrent Neural Network(RNN)**
- Built an RNN model with Functional API to analyze polarity of sentiments and extract the supporting phrases from the tweet.
- Employed pre-trained Global Vectors (GloVe) word embeddings of 27K+ sentences to capture semantics in sentences.

Lock the Vote ⬈ **| BlockChain | Spyder | MySQL DB | Postman | Flask**
- Designed an electronic voting system using BlockChain technology making the voting process highly secure, transparent and reliable.
- Demonstrated 8+ voting steps using Flask API generation and Postman API integration with MySQL Database.