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Education

West Lafayette, IN

Purdue University

Fall 2020- Current

- B.S.E In Data Science, May 2024, In-major
- Coursework: Data Mining and Machine Learning, Large Scale Data Analytics, Information Systems

Technical Experience

Lightning Wildfire Research Lab (Purdue EAPS X NASA)

January 2023- Present

- Employed statistical models to examine satellite data and identify the correlation between dry lightning and wildfires counts
- Improve wildfire danger prediction by training machine learning models on meteorological, vegetation, and human-related data
- Analyze each environmental parameter's predictive power, specifically for lightning and humidity, and compare data with traditional and Machine Learning-based fire danger metrics.

Projects

Kaggle Bank Lending Prediction

- Participated in a community Kaggle competition focused on making lending (binary classification) for a bank, ranked 12th place among a total of 130 classmates
- Conducted data exploration and cleansing for modeling, including handling missing values, removing outliers, and encoding categorical variables
- Trained and evaluated multiple classification models, including Random Forest, Gradient Boosting, and AdaBoost, using a variety of performance metrics

Celebrity Image Classification

- Utilized the Fatkun Chrome tool, a user-friendly extension, to collect images of five actors through bulk image download from web pages
- Employed OpenCV for image cleaning, including face detection and image resizing, while also applying wavelet transforms and color histograms for feature engineering
- Implemented fine-tuned models with cross-validation, grid search, and accuracy as the performance metric, resulting in trained models for each actor that accurately classify new images and showcase the end-to-end machine learning project pipeline.

FinanceHack- Hackathon for The University of Illinois at Urbana Champaign

- Developed an app utilizing the SEC API to search the latest SEC filings and access all corporate documents from the SEC EDGAR archive filed since 1994
- The App extracts the most important information from financial statements to provide a snapshot of a corporation's financial health
- Created a website using Django and hosted on Heroku
- The website allows users to enter a company's name and receive real-time financial information

Languages and Technologies

- Python, R, SQL, Microsoft Power BI, Java, MySQL, SQLite, Microsoft Office, ChatGPT, Google Cloud
- Big Data & Machine Learning: scikit-learn, PyTorch, Keras, OpenCV, Matplotlib, Spark, Hive, Hadoop
- Data Science pipeline (cleansing, wrangling, visualization, modeling and interpretation)

Employment

Math Tutor, TeamMathics Sdn. Bhd., Malaysia

Dec 2019- June 2021

- Designed and implemented lessons plan for a class of 50 students
- Contributed to the creation, revision, administration, and grading of assessments