Srikar Lanka

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Education

Purdue University   West Lafayette, IN
Bachelor of Science in Computer Science   *Aug. 2021 – May 2025*
Bachelor of Science in Data Science   *GPA: 3.59/4.00*

Experience

Trading Analytics Intern   May 2024 – Aug. 2024
BP   *Houston, TX*
- Improved demand forecasts by quantifying historic LPG refrigeration rates using ship-tracking APIs for exports
- Developed a cross-commodity production tool in Python and Power BI to improve risk analysis for propane outlooks
- Used Dataiku to create an end-to-end tool estimating vessel loading rates that feeds directly into Power BI dashboards
- Increased back testing capabilities by visualizing historic forecasts against actual basin-level production

Data Analytics Intern   May 2023 – Aug. 2023
State Farm   *Bloomington, IL*
- Improved monthly automobile claim count forecasts by 15% through supervised machine learning techniques
- Achieved 93% accuracy in predicting automobile total loss counts using autoregressive modeling in Python
- Performed K-Means clustering to explain customer retention cycles and migration patterns using Python's scikit-learn
- Explored quantitative relationships between policy growth coverage and losses to quantify risk-return on policies

Data Science Intern   May 2022 – Aug. 2022
Collins Aerospace   *Windsor Locks, CT*
- Analyzed engine usage of A320 aircrafts to optimize fuel savings opportunities during taxi-out time
- Processed flight data and develop 30+ heatmaps to assess aircraft performance using PySpark and Python's Bokeh
- Developed a fuel consumption metric using trapezoidal integration in Python to improve existing estimators
- Improved part maintenance detection by 10% through generating 100+ line replacement unit plots

Projects

PropBet | *Python, Django, JavaScript*   Jun. 2024 – Present
- Automated scraping past props and sped up dataset generation by 60% using JavaScript with Python Selenium
- Generated profit returns of 10%+ by creating a suite of machine learning models for player props
- Actively using Django to develop a REST API service giving betting recommendations for players

ERD Clustering | *Python, YOLOv5, TensorFlow*   Oct. 2023 – Dec. 2023
- Collaborated with a team of 5 to build image recognition models using YOLOv5 and TensorFlow for ERD diagrams
- Performed reductions from student submission images to text files, using EasyOCR to extract relevant text
- Developed 3+ clustering models to group similar text files, serving as a future grading procedure for Purdue's CS 348

Arbol Chatbot (Purdue Solutions) | *Python, SQL*   Sep. 2022 – Dec. 2022
- Collaborated with a team of 7 to streamline dataset selection process for team analysts based on relevant parameters
- Corrected grammar of input queries through NLTK's Edit Distance implementation for accurate string processing
- Enhanced user flexibility through Python's GeoPy to automate API calls for coordinate and address translations

Forecast Production (Wabash National) | *Python*   Aug. 2021 – May 2022
- Improved prediction accuracy by 15% through XGBoost modeling for production of Dry and Refrigerated vans
- Partnered with The Data Mine to present in a 50+ person symposium to highlight commercial impact of team analysis

Skills

Programming Languages & Technologies: Python (pandas, NumPy, Matplotlib, scikit-learn, statsmodels, polars, SciPy), Java, R, Git, C, PySpark, Flask, Databricks, Linux OS, SQL (MySQL), Power BI, TensorFlow, YOLOv5, Django

Courses: Data Structures & Algorithms, Machine Learning, Analysis of Algorithms, Object-Oriented Programming, Linear Algebra, Probability, Information Systems, Operating Systems, Systems Programming, Multivariate Calculus