Kalyan Venkat Madireddy

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Education

University of North Carolina at Charlotte | GPA: 4.0+ | Summa Cum Laude Honor* **Dec 2023**
MS in Computer Science with Spec. in Data Science | **Relevant Coursework:** Algorithms, Big Data Analytics, Data Base Management Systems, Computer Vision, Machine Learning, Data Visualizations & Analysis.

SASTRA University | GPA: 8.74 | Dean's Merit List top 15% * **May 2022**
B.Tech in Computer Science and Engineering | **Relevant Coursework:** Data Warehousing, Data Mining, Natural Language Processing/NLP, Artificial Intelligence/AI, Cloud Computing, IOT, Applied ML, Statistics

Skills

Languages: Python , Java , R , SQL, C++, C
Technologies, Concepts & Tools: Machine Learning algorithms, data architecture, data mining, Tableau & Dashboards, Predictive Modeling, Recommender Systems, PostgreSQL, A/B Testing , Multivariate Testing , Decision Trees, Classification, Regression, product analytics, Natural Language Processing (NLP), GitHub, GitLab, ETL Frameworks, Statistical Techniques, Hadoop, Hive, Splunk, Spark, power BI , Statistics, Data Engineering
Libraries and others: Pandas, NumPy, scikit-image, Seaborn, sklearn, Keras, TensorFlow, PyTorch, OpenCV, Excel

Experience

COMCAST | Xfinity **Chennai,India**
Software Engineering Intern - Data Science Track | Full time *Dec 2021 – Jun 2022*

- Engineered a real-time ETL Frameworks data pipeline, enhancing response time by 30% for S3 bucket updates. Implemented these innovations using Python and AWS Glue, seamlessly integrating them into a PostgreSQL backend. Achieved this by adapting MLOps methods within an Agile setting.
- Streamlined S3 task automation design with Apache Airflow in a fast-paced environment, resulting in a 40% reduction in manual intervention. Implemented Python-powered DAGs that operate on JSON objects and update statuses at 30-second intervals through continuous deployment, thereby improving overall efficiency.

VERZEO **Bangalore, India**
Data Science and Machine Learning Intern | Full time *May 2021 – Aug 2021*

- Steered the development of real-time dress recommendation system software that supports scalability and security, utilizing trending data migrated from the Twitter Application Programming Interface (API). These innovative solutions resulted in a 25% growth in market sales for the enterprise.
- Accomplished this by delivering recommendations based on appearance and mood while adopting Agile methodologies. Implemented sentiment analysis techniques across a diverse array of approximately 16 Machine Learning algorithms, fostering effective collaboration, communication and Teamwork.

UNC Charlotte **North Carolina, USA**
Student Academic Tutor | Part time | Algorithms, Python, Big Data Analytics, Machine Learning *Jan2023 – Present*

- Demonstrated personalized support to more than 40 students, fostering their confidence and facilitating their learning.
- Fostered a collaborative learning environment, boosting participants' ability to think logically within 6 months.

Academic Projects

Loss Ratio Prediction For Insurance Portfolios (link) | Guide: Prof. Gabriel Terejanu | Kaggle link | **May 2023**

- Experimentation on a pioneering loss ratio project, resulting in a 15% enhancement in pricing. Applied data analytics for informed decision-making, engineered insights, and contributed to decision-making through Hypotheses Testing. Tech: Pandas,power BI, product analytics, Predictive Modeling, Hadoop, Regression, Reporting, Multivariate Testing.

Network Optimization Project (link) | Guide: Prof. Srinivas Akella **Mar 2023**

- Fabricated an algorithms project, achieving a 20% improvement in network optimization and effectively addressing complex network challenges using shortest path techniques. Tech: Python, Graphs,Statistical Techniques, Decision Trees

Data Base Management Project (link) | Guide: Prof. Sara Riazi **Mar 2023**

- Architected a robust hospital database project using SQL, enabling efficient data management and retrieval with over 10,000 patient records and 50,000 medical procedures. Tech: Data Modeling, RDBMS, data architecture, PostgreSQL

Coral Reef Detection and Analysis (link) | Guide: Prof. Srijan Das | In association with CRF, USA | **Dec 2022**

- Conducted a groundbreaking coral analysis project, delivering precise classification, segmentation of coral reefs, and optimizing object detection for advanced environmental monitoring, culminating in a 99.7% classification accuracy. Tech: OpenCV, Segmentation, Neural Networks, PyTorch, TensorFlow, A/B Testing, scikit-image, Git,sklearn,Visualizations

Emotion Recognition and Sentiment Analysis (link) | Guide: Prof. Santhi **May 2022**

- Optimized business decisions with automated sentiment analysis and emotion recognition, achieving remarkable accuracy of 97%. Tech: Classification, Recommender Systems, NLTK, Natural Language Processing /NLP, Tableau, Splunk.

Intelligent Organization using Google Cloud [IOTA] (link) | Guide: Prof. Pradeepa S | Vid1 | Vid2 | **Mar 2023**

- Revolutionized unstructured data management with intelligent filtering and segmentation on the Google Cloud Platform, resulting in a remarkable 30% performance surge. Tech: Big Query, Trifacta Dataprep, NOSQL, DataFlow, Hive.