

Krishna Margali Goparapu

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EDUCATION

Rochester Institute of Technology – Rochester, NY

Aug 2021 – Dec 2023

Masters in Computer Science

GPA: 3.6

Relevant Coursework: Big Data, Artificial Intelligence, Machine Learning, Database System Implementation, Data Analytics, Statistical Tools

GITAM University - Hyderabad, India

July 2017 - June 2021

Bachelors in Electronics and Communications Engineering

PROFESSIONAL EXPERIENCE

Rochester Institute of Technology – Rochester, USA

Sep 2022 – Present

Graduate Teaching Assistant

- Mentored and coached a cohort of 120 students across six months, steering their progression in REST API development initiatives, achieving a 100% project completion rate within stipulated timeframes and budgetary constraints.
- Led three immersive workshops, fostering experiential learning and fostering comprehensive understanding of REST API projects.
- Orchestrated the delineation of project scopes, precise timeline establishment, strategic milestone identification, and meticulous constraint management, ensuring seamless execution and timely delivery of over 10 projects.
- Implemented sophisticated computer systems to capture, organize, and store coursework and examination outcomes, ensuring data precision and structured records for future in-depth analysis.

Idea Bytes - Hyderabad, India

Sep 2020 – Jan 2021

Data Science Intern

- Designed and proposed an innovative application using Flask, Cloud APIs, Advanced Python libraries and seamlessly integrated a CNN algorithm for human expression and gender detection, achieving a 94% accuracy rate.
- Mitigated the limitations posed by limited labeled training data by implementing dropout and L1 regularization techniques, resulting in a substantial enhancement in the CNN algorithm's performance and a 15% increase in generalization.
- Leveraged ensemble learning and model stacking methodologies to aggregate predictions from multiple models, leading to a significant boost of 25% increase in the application's performance.

Phoenix Global - Hyderabad, India

May 2020 – Jul 2020

Data Analyst Intern

- Developed interactive dashboards and comprehensive COVID-19 visualizations using Tableau, Microsoft Power BI and Python, resulting in a 30% increase in data accessibility and understanding among stakeholders.
- Demonstrated a deep understanding of data visualization techniques, creating visually appealing and informative reports that led to a 20% improvement in data comprehension and decision-making efficiency.
- Enabled data-driven decision-making by providing valuable insights to key stakeholders through insightful visualizations, contributing to a 15% reduction in response time and a 25% increase in the effectiveness of COVID-19 mitigation strategies.

PROJECTS

Analysis of Adoption & Usage: Electric Vehicles in Washington State (1997 – 2022)

Mar 2023 - May 2023

- Conducted an extensive data analysis of the electric vehicle population in Washington using data preprocessing techniques, outlier detection and feature selection to prepare the dataset for machine learning models.
- Developed and implemented machine learning models, including Decision Tree classifiers, Random Forest Regressors and an ensemble model, achieving up to 98.52% accuracy in classification and diminishing mean squared error in regression, yielding a 20% improvement.
- Unveiled actionable insights instrumental for policymakers and stakeholders, driving a 10% increase in targeted EV adoption incentives.

IMDB Data Integration

Jan 2022 - Nov 2022

- Developed a data integration project involving a vast dataset of nearly 20 million records using Python, MongoDB, Apache Spark and PostgreSQL, ensuring seamless data flow and effective data management.
- Applied advanced data integration techniques, including K-Means Algorithm and Apriori for itemset mining.
- Employed strategic indexing methodologies to enhance query retrieval performance and by deploying indexes the query retrieval time experienced a 60% reduction, further elevating the efficiency and responsiveness of data retrieval operations.

Crop Prediction Using Machine Learning

May 2019 - Oct 2019

- Led Crop Prediction model development using ML algorithms (Support Vector Machine, Logistic Regression and Deep Neural Networks).
- Achieved a 94% crop yield prediction accuracy for maize and cotton, collaborating with experts for hyperparameter optimization.

SKILLS AND ACHIEVEMENT

Functional:	Data Analysis, Version Control, SDLC, Data Visualization, Statistics, Database Management, Cloud Computing
Technical:	Python, SQL, HTML, C++
Frameworks:	MATLAB, Tableau, PowerBI, Hadoop
Databases:	PostgreSQL, MongoDB, CouchDB, Apache Spark, H2, Oracle SQL, Cassandra (NoSQL)
ML Libraries:	Flask, Keras, TensorFlow, OpenCV, NumPy, Pandas, Scikit-learn, PyTorch, Matplotlib
Software & Cloud:	Git, Unix, Amazon Web Services, Heroku
Achievement:	Scholarship of 40% for Academic Excellence