RUTHIK KALE

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EDUCATION

Master's in Computer Science (University of Georgia) Athens, GA *Aug 2022 – Dec 2024*
(Advance Distributed Systems, Advance Representation Learning, Modern Statistical Programming) *GPA: 3.5/4*

Bachelor's in Computer Engineering and Honors in Data Science (University of Pune) India *Aug 2018 – Jul 2022*
(Software Engineering, DBMS, Algorithms, Computer Network, ML, Cloud Computing, Data Analytics) CGPA: 8.7/10

SKILLS & TOOLS

Languages & WebTech:	Python, R, SQL, Bash – Shell, JavaScript, TypeScript, Django, Node.js
Tools & Libraries:	Pandas, NumPy, SciPy, Selenium, Jupyter, VSCode, Hugging Face, NLP
Data Management & Server:	MySQL, PostgreSQL, MongoDB, AWS (EC2, S3), GCP, Azure, Linux, Docker, Spark, BigQuery
ML Technologies:	Scikit-learn, PyTorch, TensorFlow, Predictive Modeling, Data Modeling, Timeseries Forecasting
Data Analysis & BI Software:	Tableau, Power BI, Qlik, Looker, Microsoft Excel, Google Data Studio, ArcGIS, ESRI

PROFESSIONAL EXPERIENCE

Data Scientist & GIS Innovator – Research Assistant, *Carl Vision Institute of Government* *Aug 2023 – Present*
- Collaborated with cross-functional teams to translate predictive models into practical business strategies, integrating these models into IT platforms to automate decision-making, which reduced manual processing time by 25% and enhanced overall accuracy in government operations.
- Conducted thorough data cleaning and visualization processes, uncovering key anomalies and patterns that drove actionable insights, leading to a 20% increase in operational efficiency by optimizing resource allocation and streamlining workflows.
- Designed and implemented predictive models to address complex business challenges, leveraging techniques such as multivariate regression and decision trees, which improved decision-making processes by 30%, enabling more accurate forecasting and planning within the government sector.

Strategic Financial Data Scientist – Student Assistant, *Terry College of Business - Finance* *Aug 2023 – Dec 2023*
- Worked closely with IT and business partners to implement predictive models into automated systems, ensuring seamless integration and real-time decision-making capabilities that enhanced the organization's ability to respond quickly to market changes and optimize financial outcomes.
- Gathered and analyzed large datasets from diverse sources, ensuring data integrity and reliability, which enabled the identification of key business trends and supported the creation of data-driven financial strategies that enhanced profitability by 10%.
- Developed and validated advanced machine learning models, including stochastic gradient boosting and deep learning techniques, to optimize financial decision-making, resulting in a 15% improvement in the accuracy of financial forecasting and risk assessment for strategic business units.

Lead Data Science Educator – Teaching Assistant, *School of Computing at UGA - CS Department* *Aug 2022 – May 2023*
- Mentored students in developing data-driven solutions to business challenges, guiding them through the process of data gathering, cleaning, visualization, and model development, which resulted in a 25% increase in the quality of student projects.
- Created and delivered curriculum focused on the application of machine learning algorithms, such as XGBoost and LightGBM, to solve complex business problems, providing students with hands-on experience in managing and analyzing large datasets.
- Led workshops and lectures on advanced data science techniques, including the use of open-source AI/ML tools such as Python, R, and scikit-learn, empowering students to develop robust predictive models and apply them to real-world business scenarios.

E-Commerce Data Strategist & Data Analyst, *E-commerce BI StartUp* *Apr 2021 – Oct 2021*
- Collaborated with IT teams to integrate predictive models into the company's decision-making platforms and improving operational efficiency by 30%, while continuously monitoring model performance to ensure ongoing effectiveness and relevance in a fast-paced e-commerce environment.
- Managed and analyzed large-scale e-commerce datasets, uncovering trends and patterns that informed strategic business decisions, which led to a 15% improvement in customer retention and overall business growth by tailoring product offerings to customer preferences.
- Applied machine learning models to optimize e-commerce operations, resulting in a 20% increase in sales conversion rates by identifying key customer behaviors and refining marketing strategies through data-driven insights and predictive analytics.

PROJECTS

GeoInsight: Global Conflict and Crisis Mapping (*Node.js & Express, Axios, Leaflet, jQuery & Select2) [Live Demo]* *Mar 2023 – Jul 2023*
- Built an analytical platform for real-time monitoring of geopolitical events, integrating geospatial data and machine learning models. Improved data processing by 25% and decision-making speed by 30%, supporting crisis teams with predictive insights and interactive visualizations.

Human Resource Analytics Hub (*Power BI, Excel, SQL, DAX, Data Modeling) [Live Demo]* *Feb 2024 – Mar 2024*
- Built an interactive Power BI dashboard to visualize HR metrics (attrition, salary, demographics), empowering HR teams to reduce attrition by 15% and enhance workforce planning efficiency by 40% through real-time insights and data-driven interventions.

E-Commerce Sales Dashboard (*Power BI, Google Sheets, ETL, Data Warehousing) [Live Demo]* *Jan 2024 – Feb 2024*
- Created a dynamic sales performance dashboard to track key metrics (sales, profit, shipping), improving sales strategy efficiency by 30% and cutting shipping delays by 20% through actionable data visualizations and operational optimization.

SummariX: Advanced Video Content Summarization Engine (*Python, Django, BART CNN Model)[CODE]* *Jan 2023 – Jun 2023*
- Developed a Django app utilizing BART CNN and NLP to summarize YouTube videos, improving summarization accuracy by 40%. Increased content accessibility by 40% and engagement by 25%, incorporating user feedback for continuous improvement.

ACVHIEVEMENTS

Secured second place at the **Maharashtra Health Hackathon (MH2)** by developing a responsive and scalable online portal for **COVID-19** patients. Pioneered data-driven insights that significantly improved humanitarian mission accuracy by 20%, directly contributing to global crisis response efforts.