

RUTHIK KALE

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EDUCATION

Master's in Computer Science (University of Georgia) Athens, GA (Advance Representation Learning, Advance Distributed Systems, Modern Statistical Programming)	Aug 2022 – May 2024 GPA: 3.5/4
Bachelor's in Computer Engineering and Honors in Data Science (University of Pune) India (Software Engineering, DBMS, Algorithms, Computer Network, ML, Cloud Computing, Data Analytics)	Aug 2018 - Jul 2022 CGPA: 8.7/10

SKILLS & TOOLS

Languages:	Python, R, Java, C++, C, JavaScript, TypeScript, PHP, HTML – CSS
Tools & Libraries:	Django, Express.js, Node.js, Angular, REST API, Scikit-learn, React, Spring Boot
Data Management & Cloud:	MySQL, Firebase, MongoDB, AWS, GCP
Analytics:	Power BI, Pandas, Matplotlib, Qlik
IT Infrastructures:	Scrum, Agile, ETL Process, Linux/Unix, Git, WireShark, ArcGIS Pro, COD Services API

WORK EXPERIENCE

Graduate Research Assistant, ITOS Division at Carl Vision Institute of Government	Aug 2023 – Present
<ul style="list-style-type: none">Championed the “Humanitarian Info. Mgmt.” initiative in partnership with UN OCHA and various humanitarian groups, integrating GIS and data analytics, resulting in a 30% surge in data-driven insights for more informed decision-making.Took charge of the management and quality assessment of Common Operational Datasets (CODs). Designed and implemented applications and APIs, enhancing data quality by 25% and fortifying collaborative efforts with humanitarian partners.Engineered a deep learning solution to identify buildings from satellite imagery, juxtaposing these findings with flood-impacted regions. This technical approach optimized relief mission strategies, resulting in a 20% boost in mission accuracy. <i>(Python, JAVA, Data Visualization, ArcGIS Pro, Jupyter Notebook, Postman, COD Services API, Wasabi S3)</i>	
Graduate Student Assistant, Terry College of Business at UGA - Finance	Aug 2023 - Dec 2023
<ul style="list-style-type: none">Proficiently scraped and processed financial data from 990-PF forms using Selenium and Amazon OCR for major organizations.Conducted a comprehensive risk assessment, leveraging financial analysis and cross-functional collaboration, to identify potential vulnerabilities and recommend mitigation strategies for the organization's financial health and mission sustainability.Evaluated the impact of philanthropic initiatives by analyzing grantmaking patterns and financial data, offering insights to enhance grant strategies and maximize the foundation's positive influence on social or environmental causes. <i>(Amazon S3, Amazon OCR, Selenium, Python, Data Visualization, Statistics, Beautiful Soup)</i>	
Graduate Teaching Assistant, School of Computing at UGA - CS Department	Aug 2022 - May 2023
<ul style="list-style-type: none">Served as a Graduate Teaching Assistant for Data Science and Discrete Mathematics courses, showcasing deep expertise in analytical concepts and mentoring over 100 students, further emphasizing my hands-on approach to data analysis and problem-solving.Managed academic assessments, emphasizing precision in grading and data interpretation, while also leading lab tutorials that delved into practical data analysis techniques, code reviews, and advanced analytical methodologies. <i>(Python, Data Visualization, Linear Algebra, Statistics, ML/ DL - Classification, Regression, Clustering, Algorithms)</i>	
Data Analyst Intern, Bed Rest and Order Services - Business Intelligence Department	Apr 2021 - Oct 2021
<ul style="list-style-type: none">Collaborated with cross-functional teams on two major expansion projects, leveraging data analytics to assess business metrics, leading to the formulation of 15+ strategic recommendations for tapping into new customer segments.Engineered data-driven solutions to enhance delivery route efficiency, leading to significant reductions in delivery durations.Utilized advanced statistical techniques and predictive modeling to decipher data trends thus pinpointing the top 4 optimal delivery zones in Mumbai, enabling targeted customer acquisition, and resulting in substantial cost savings for the company. <i>(Python, SQL, Power BI, Jupyter Notebook, MS Tools, Data Visualization, EDA, Google Cloud Platform)</i>	

PROJECTS

Project ‘X’ – Post Disaster Image Generator (Python, Stable Diffusion, PyTorch, CLIPTokonizer, PIL)	Jun 2023 - Aug 2023
<ul style="list-style-type: none">Accomplished the transformation of pre-disaster satellite images into realistic post-disaster scenarios by implementing Stable Diffusion techniques and integrating a custom pipeline with CLIP models, Autoencoders, and UNet architectures.Developed efficient data preprocessing routines and training using Python and PyTorch, enabling the model to learn from diverse pre- and post-disaster satellite imagery. This approach significantly improved the model's ability to generalize across different disaster scenarios.	
E-Cinemax - Movie Booking Platform (Python, Django, HTML-CSS, JavaScript) [CODE]	Aug 2022 - Dec 2022
<ul style="list-style-type: none">Led the end-to-end software development process, designing relational database schemas and connecting frontend - backend logic, resulting a 40% boost in application performance and guaranteed 99.8% precision in data handling and storage.Integrated payment gateways with enhancement in payment processing, leading to a 30% decrease in transaction discrepancies.	
Grease Monkey - Android Application (Java, Firebase, GCP, Google Maps) [CODE]	Jan 2022 - Jul 2022
<ul style="list-style-type: none">Developed a high-performance application by leveraging location-based services, achieving a 50% improvement in the speed of displaying nearby service providers on Google Maps and efficiently routing users to their chosen providers.Enhanced application security by seamlessly integrating Google Security Services and Google Firebase authentication, ensuring a 99.9% secure data environment, along with the consistent logging and analytics management in Firebase.	

ACVHIEVEMENTS

Maharashtra Health Hackathon (MH²) - Won second place out of 150 teams for creating a winning business model that proposed a centralized online responsive portal for COVID patients which resulted in receiving a pre-incubation offer.