RUTHIK KALE

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EDUCATION

Master's in Computer Science (University of Georgia) Athens, GA   *Aug 2022 – May 2024*
(Advance Distributed Systems, Software Engineering, Database Management)   *GPA: 3.5/4*

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

SKILLS & TOOLS

Languages:	Python, R, Java, C++, C, JavaScript, TypeScript, PHP, Scala
Web Technologies:	HTML, CSS, React, Angular, Node.js, Express.js, Django, jQuery, JSON, XML, Bootstrap 5
Tools & Libraries:	REST API, Scikit-learn, PyTorch, TensorFlow, React, Spring Boot, CI/CD
Data Management & Cloud:	MySQL, Firebase, MongoDB, AWS (OCR, EC2, S3), GCP, Apache Spark, Kafka, Hadoop
IT Infrastructures:	Scrum, Agile, ETL Process, Linux/Unix, Git, WireShark, ArcGIS Pro, Qlik, Docker

WORK EXPERIENCE

Graduate Research Assistant, *ITOS Division at Carl Vision Institute of Government*   *Aug 2023 – Present*
- Refined the establishment of strategic alliances with WHO, UN OCHA, and US AID to execute the Humanitarian Information Management initiative; integrated GIS and data analytics, resulting in a remarkable 30% surge in data-driven insights for informed decision-making.
- Streamlined the management and quality assessment of Common Operational Datasets (CODs); executed innovative applications and APIs, leading to a significant 25% improvement in data quality and fostering stronger partnerships with humanitarian organizations.
- Developed a cutting-edge deep learning model to automatically identify buildings in satellite imagery and analyze flood-impacted regions.
  (JavaScript, Node.JS, Python, Docker, API, ArcGIS Pro, TensorFlow, Mask RCNN, Automation, Qlik, GitLab, Wasabi S3, Postman)

Graduate Student Assistant, *Terry College of Business at UGA - Finance*   *Aug 2023 - Dec 2023*
- Developed and improved an automated system using Selenium and Amazon OCR to streamline financial data extraction and analysis from 990-PF forms for major organizations; resulted in a remarkable time savings of 20+ hours per week, enhancing data processing efficiency.
- Leveraged data analysis to boost grant allocation, achieving a 30% increase in social and environmental impact.
  (Amazon OCR, Selenium, Python, Tableau, Risk Assessment, Data Manipulation, Financial Analysis)

Graduate Teaching Assistant, *School of Computing at UGA - CS Department*   *Aug 2022 - May 2023*
- Introduced a comprehensive curriculum and delivered interactive lectures, and facilitated hands-on workshops, resulting in a 95% student retention rate and substantial improvements in their understanding and application of key concepts in Data Science and Discrete Mathematics.
- Empowered 50+ students to excel in data projects, resulting in a 35% increase in high-quality submissions.
  (Python, Data Visualization, Linear Algebra, Statistics, ML/ DL - Classification, Regression, Clustering, Algorithms)

Developer & Analyst Intern, *Bed Rest and Order Services - Business Intelligence Department*   *Apr 2021 - Oct 2021*
- Collaborated cross-functionally on two pivotal expansion initiatives, leveraging data analytics to assess vital business metrics; formulated 15+ strategic recommendations to target new customer segments, driving a 30% boost in revenue and a 20% increase in customer retention.
- Managed the end-to-end development and deployment of an advanced machine learning algorithm, leveraging real-time traffic data to optimize delivery routes, resulting in a 15% reduction in delivery duration and an outstanding 20% increase in customer satisfaction.
- Led predictive modeling to identify top 4 Mumbai delivery zones, boosting targeted customer acquisition and saving 25% in costs.
  (Python, JavaScript, SQL, Power BI, Jupyter Notebook, MS Tools, Data Visualization, EDA, Google Cloud Platform)

PROJECTS

Project 'X' – Post Disaster Image Generator (*Python, Stable Diffusion, PyTorch,* CLIPTokonizer, PIL) *[CODE]*   *Aug 2023 - Dec 2023*
- 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.

Athena – **Course Registration Portal** *(Python, Django, Express.JS, MySQL) [CODE]*   *Jun 2023 - Aug 2022*
- Engineered 'Athena', a dynamic web portal for streamlined course registration, incorporating CRM-like functionalities for efficient management of student profiles and course selections, resulting in a 30% improvement in registration efficiency and system reliability.

E-Cinemax - Movie Booking Platform *(Python, Django, PostgreSQL, JavaScript) [CODE]*   *Aug 2022 - Dec 2022*
- Architected and led the complete software development process, designing a robust relational database schema and seamlessly integrating frontend-backend logic; achieved 40% increase in application performance and guaranteed 99.8% precision in data handling and storage.

Grease Monkey - Android Application *(Java, Firebase, GCP, Google Maps)[CODE]*   *Jan 2022 - Jul 2022*
- Developed a high-performance application, leveraging location-based services and data analytics, which led to a 50% faster visualization of service providers on Google Maps, showcasing proficiency in data-driven optimization and geospatial analysis.

ACVHI7EVEMENTS

Pioneered an award-winning business model at the **Maharashtra Health Hackathon (MH2)**, earning second place among 150 competing teams. Proposed a highly responsive, centralized online portal for COVID patients, resulting in a pre-incubation offer for implementation.