RUTHIK KALE

+1(706) 765-5829 | ruthikkale1@gmail.com | linkedin.com/in/ruthik-kale/ | ruthik27.github.io/

EDUCATION

Master's in Computer Science (University of Georgia) Athens, GA — *Aug 2022 – May 2024*
(Advance Representation Learning, Advance Distributed Systems, 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:	Python, R, Java, C++, C, JavaScript, TypeScript, PHP
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, Pandas, Matplotlib
Data Management & Cloud:	MySQL, Firebase, MongoDB, AWS (EC2, S3), GCP
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*

- Spearheaded the UN OCHA partnership to implement the Humanitarian Information Management initiative; integrated GIS and data analytics, resulting in a 30% surge in data-driven insights for 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.

Graduate Student Assistant, *Terry College of Business at UGA - Finance* — *Aug 2023 - Dec 2023*

- Streamlined financial data extraction and analysis from 990-PF forms for major organizations using Selenium and Amazon OCR; achieved significant time savings of 20+ hours per week by improving data processing efficiency.
- Executed a thorough risk assessment, utilizing financial analysis, and collaborating with cross-functional teams, to identify vulnerabilities and propose mitigation strategies, fortifying the organization's financial health and mission sustainability.
- Analyzed grant making patterns and financial data to assess the efficacy of philanthropic initiatives; analyzed findings to refine grant strategies, leading to a 30% increase in positive social and environmental outcomes.

Graduate Teaching Assistant, *School of Computing at UGA - CS Department* — *Aug 2022 - May 2023*

- Mentored 100+ students for Data Science and Discrete Mathematics courses; proposed expertise in analytical concepts to foster student success, leading to a 95% pass rate and notable improvement in academic performance.
- Led lab tutorials on advanced analytical methodologies, conducted code reviews, and facilitated practical data analysis techniques, empowering 50+ students to excel in complex data-driven projects.

Developer & Analyst Intern, *Bed Rest and Order Services - Business Intelligence Department* — *Apr 2021 - Oct 2021*

- 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.
- Spearheaded the development of a machine learning algorithm that utilized real-time traffic data to optimize delivery routes, resulting in a 15% reduction in delivery duration and a 20% increase in customer satisfaction.
- Proposed advanced statistical techniques and predictive modeling to identify the top 4 optimal delivery zones in Mumbai, resulting in targeted customer acquisition and leading to significant cost savings for the company.

PROJECTS

Project 'X' – Post Disaster Image Generator (*Python, Stable Diffusion, PyTorch,* CLIPTokonizer, PIL)*[CODE]* — *Jun 2023 - Aug 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.
- Developed and optimized Python and PyTorch data pre-processing routines for diverse pre- and post-disaster satellite imagery, resulting in a significant improvement in model generalization across different disaster scenarios.

E-Cinemax - Movie Booking Platform *(Python, Django, HTML-CSS, JavaScript)[CODE]* — *Aug 2022 - Dec 2022*

- Led the end-to-end software development process, designing relational database schema 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*

- Implemented an innovative application that utilized location-based services to optimize routing users to preferred service providers, resulting in a remarkable 50% increase in speed and efficiency.
- 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

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.