

# Rishika Mamidibathula

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## EDUCATION

<b>Columbia University</b>	New York, US
<i>Master of Science, Data Science</i>	<i>Expected Dec 2026</i>
<ul style="list-style-type: none"><li>Coursework: Deep Learning, Generative AI Systems, Robot Learning, High Performance Machine Learning, Statistical Inference and Modeling, Causal Inference, Probability and Statistics, Data Analysis and Visualization.</li><li>Data Science Institute Student Council Member.</li></ul>	
<b>Vellore Institute of Technology</b>	Vellore, IN
<i>Bachelor of Technology, Computer Science and Engineering - Data Science, CGPA: 4/4</i>	<i>May 2023</i>
<ul style="list-style-type: none"><li>Rank: 7 (Top 4%), Recipient of Merit Scholarship 2019 - 2023, Served as Program Representative: 2019 - 2023.</li><li>Coursework: Artificial Intelligence, Mathematical Modeling, Image Processing, Business Intelligence and Analytics, Predictive Analytics, Natural Language Processing, Machine Learning, Social and Information Networks.</li></ul>	

## WORK EXPERIENCE

<b>Software Engineer</b>	Aug 2023 - Jul 2025
<i>Shell</i>	<i>Bengaluru, IN</i>
<ul style="list-style-type: none"><li>Spearheaded the LE Automation project by developing a financial forecasting model in Databricks, integrating outputs into Power BI to support strategic planning and reduce operational costs by \$100K annually.</li><li>Oversaw the deployment of multiple RPA bots using Blue Prism, ensuring reliable, scalable automation while optimizing end-to-end process efficiency, saving approximately 120 hours of manual effort per quarter.</li></ul>	
<b>Technical Analyst Intern</b>	Jan 2023 - Jul 2023
<i>Novartis</i>	<i>Hyderabad, IN</i>
<ul style="list-style-type: none"><li>Developed a net-zero emissions initiative by applying predictive modeling to environmental data using Python, Alteryx, and Qlik Sense, achieving a 19% annual reduction in carbon emissions.</li><li>Built NLP pipelines by creating a custom corpus from clinical trial results to extract actionable insights and automate analysis, reducing manual effort by ~40% quarterly.</li></ul>	
<b>Data Visualization Intern</b>	Feb 2022 - Mar 2022
<i>Saint Louis University</i>	
<ul style="list-style-type: none"><li>Developed Tableau dashboards to analyze campaign performance metrics, supporting data-driven decisions that enhanced campaign efficiency and optimized resource allocation.</li></ul>	

## PROJECT AND RESEARCH EXPERIENCE

<b>Automated Kidney Disorder Detection</b>   <i>Python, TensorFlow, VGG19, Fine-Tuning</i>	<a href="#">GitHub</a>
<ul style="list-style-type: none"><li>Developed a deep learning-based CT kidney image classification system using transfer learning with VGG19, incorporating grayscale normalization and data augmentation to achieve 99.2% accuracy, 99% precision/recall, and a ROC-AUC of 0.992 across four clinical classes (Normal, Cyst, Stone, Tumor), reducing misclassification by 50% relative to baseline models.</li></ul>	
<b>Ghost Writer AI</b>   <i>Python, Streamlit, OpenAI GPT-4o, DALL-E 3, REST APIs</i>	<a href="#">GitHub</a>   <a href="#">Demo</a>
<ul style="list-style-type: none"><li>Engineered a full-stack AI content generation system integrating GPT-4o for structured text synthesis and DALL-E 3 for image generation, using modular prompt templates to support multi-tone and variable-length outputs.</li><li>Designed a scalable Streamlit-based deployment with secure API key management, session-level state handling, and optimized I/O pipelines, achieving &lt;2s average latency and 99%+ API reliability under concurrent usage.</li></ul>	
<b>Dr. Pixel</b>   <i>Python, Streamlit, Google Gemini Vision, PIL</i>	<a href="#">GitHub</a>   <a href="#">Demo</a>
<ul style="list-style-type: none"><li>Built an AI-powered medical image analysis system leveraging Google Gemini Vision to generate structured, educational interpretations across multiple imaging modalities. Implemented optimized image preprocessing and compression pipelines reducing file size by 60%, secure API key management, and safety-focused output constraints, achieving &lt;3s inference latency in real-time deployment.</li></ul>	

## TECHNICAL SKILLS

**Languages:** Python, SQL, R, JavaScript, Java, C++, C

**ML/AI:** TensorFlow, PyTorch, scikit-learn, OpenCV, Recommendation Systems, LangChain, CrewAI, Multimodal LLMs

**Tools:** Git, Docker, Streamlit, FastAPI, Databricks, Power BI, Tableau, Alteryx, W&B