RISHIKA RANDEV

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EDUCATION

Duke University	Durham, NC

Master of Science in Interdisciplinary Data Science   *Aug 2024 – Present*

- **Honors/Awards:** Duke AI Hackathon, 2nd place (Fitting Room: an e-commerce platform for searching clothing by style)

University of Virginia	Charlottesville, VA

Bachelor of Arts in Global Public Health, Minor in Religious Studies; 3.98 GPA   *Aug 2018 – Aug 2021*

- **Honors/Awards:** Echols Scholar, Center for Global Health Equity Scholar, Dean's List

TECHNICAL SKILLS

- **Professional Certifications:** Google Cloud Platform Associate Cloud Engineer
- **Languages:** Python, R, SQL, Java
- **DS/ML & Databases:** PyTorch, sklearn, pandas, matplotlib, seaborn, Google BigQuery, Tableau (certification in progress), PostgreSQL, Pinecone DB
- **Cloud & DevOps:** Google Cloud Platform, git/GitHub, Unix/Linux, Grafana, CI/CD, Cloud Networking, Docker
- **Other Skills:** Statistical Modeling, Microsoft Excel, User-Centered Design, Technical Report Writing, Qualitative Research

EXPERIENCE

The Home Depot	Atlanta, GA (remote)

Reliability Engineering Data Science Intern   *May 2025 – Present*

- Conduct a POC to predict the failure of four major in-store applications within 30 minute intervals by building a new set of classification models
- Extract and preprocess yearly volume and error HTTP data from Prometheus monitoring systems using PromQL and Grafana as input for the models
- Compare two multivariate time series classification techniques, ROCKET and Shapelet, with tree-based classifiers applied to aggregated metrics, with final model successfully detecting nearly 90% of failures ahead of time

The Home Depot	Austin, TX (remote)

Software Engineer 2 – Site Reliability Engineering   *Oct 2022 – Aug 2024*

- Used Google Cloud Platform tools like BigQuery and Stackdriver to manage infrastructure health and analyze production incidents, combining technical problem-solving with an understanding of business impact to uphold system reliability
- Deployed over 50 infrastructural changes and feature enhancements to the account experience, collaborating with software developers and product managers to improve customer satisfaction while ensuring 99.9% application availability

PROJECTS

Cross-Modal Embeddings for Text-to-Image Retrieval & Generation in Radiology   *Dec 2025*

- Implemented contrastive loss to train a ResNet-based vision encoder and BERT-based text encoder together, projecting chest X-ray radiology images and their associated clinical observations to a shared embedding space and achieving a recall@5 of 66.4% when retrieving relevant chest X-rays based on lung pathology descriptions
- Trained a conditional GAN to generate realistic chest X-ray images, using Fréchet Inception Distance to assess the difference in distributions between real and synthetic images

Slice of Life Social Media Platform   *May 2025*

- Built a social media web application using React, Django, and postgreSQL to connect users based on their consumed media
- Implemented a recommendation system with TensorFlow that generates embeddings for a user based on their media history, stores them in a postgres vector database, and displays posts from similar users using cosine similarity

AskSQL Text-to-SQL Converter   *Dec 2024*

- Designed an easy-to-use Flask microservice for businesses to interact with inventory data by converting natural language questions into SQL queries, load tested to ensure low latency at up to 10,000 rps
- Deployed the containerized application using AWS App Runner, configuring it to interact with RDS for querying relational data, Bedrock for accessing Claude 3.5 Haiku, and Elastic Container Registry for automated re-deployment