

Rahal Danthanarayana

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Arbutus, Maryland

Senior Software Engineer with 7+ years of industry experience and a strong focus on applied Machine Learning and Generative AI. Holds a Master's degree in Computer Science (Data Science). Experience in building, deploying, and optimizing cloud-based ML pipelines and AI-powered applications on AWS, including data pipelines, model inference, and retrieval-augmented system.

TECHNOLOGIES

Operating Systems: Unix, MacOS, Windows

- Python
- SageMaker
- Jupyter Notebooks
- CI/CD
- Docker
- Elasticsearch
- MySQL
- Git
- TensorFlow

EDUCATION

BSc (Hons) In Information Technology

[University of Moratuwa](#), Sri Lanka (2012 – 2017)

- Database Management Systems
- Big Data Analytics
- Deep Learning Architectures
- Data Mining & Data Warehousing
- Artificial Neural Networks

Master's in computer science (Data Science Specialization)

[University of Towson](#), USA (01/2024 – 12/2025) | GPA: 3.87

- Consumer Sentiment Analysis
- Advanced Data Structures and algorithms
- Project Management

PERSONAL PROJECTS

New York Mental Health Assessment (2023) - [GitHub](#)

- Modeled mental-health distress using K6 clinical screening metrics on public health survey data
- Built and evaluated multiple classifiers (Logistic Regression, Random Forest, SGD) best F1 = 0.77

IntelliChef Food Recipe Recommendation System (02/2024 -04/2024)

- Built a content-based recommendation system using vector embeddings and cosine similarity
- Performed Extract, Transform, Load (ETL) on public food data set
- Developed end-to-end system with [ML backend](#) (Python) and [web frontend](#) (Angular)

Tools – Jupyter Notebook, scikit-learn

Waste dump Analysis USA 2023 (12/2021 -01/2022) - [Tableau](#)

- Visualization of national waste dump data using data Extract, Transform, Load (ETL) technique

CERTIFICATIONS AND ACHIEVEMENTS

- AWS Certified Solutions Architect – Associate (02/2023) - [URL](#)
- Reading for the Google Data Analytics Professional Certificate (02/2023) - [URL](#)

EXPERIENCE

Software Engineer in ML [Health Tech Alley, Inc](#)

(HealthCare Sector)

06/2025 – Present

Columbia, MD, USA

- Built a Generative-AI digital medical assistant supporting clinicians treating Cerebral Palsy and TBI patients.
- Utilized Small Language Model with Supervised Fine-Tuning (SFT) and Retrieval-Augmented Generation (RAG) to improve clinical response accuracy and reliability
- Designed ELT pipelines for public health data, storing curated datasets in AWS S3
- Integrated data into a Neo4j Knowledge Graph (triple-store) to support RAG-based inference
- Optimized GPU utilization through mixed-precision techniques
- Collaborated directly with Nurse Practitioners, patients, and cross-functional stakeholders to guide design and delivery

Tools: AWS SageMaker, S3, Conda, Gradio, Neo4j

Associate Technical Lead [Softcodeit Solutions \(Pvt\) Ltd](#)

12/2020 – 08/2023

Battaramulla, Sri Lanka

- Collaborating directly with the client on project planning, estimations, development and delivery.
- Implemented an online marketplace specialized in security products with Stripe payment capabilities using Angular, PrimeNG and MySQL

Senior Software Engineer [CodeGen International \(Pvt\) Ltd](#)

(Transportation Sector)

10/2019 - 10/2020

Colombo 10, Sri Lanka

- Implemented a Test-Driven Development using Jasmine and Karma
- Web crawling to fetch hotel recommendation using JSoup, Selenium
- Built a data pipeline using Logstash, Jenkins and ElastiCache