RIDHAM DAVE

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EDUCATION

University of Waterloo, Canada — *September 2021 - August 2023*
Master of Applied Science, Electrical and Computer Engineering — GPA: 3.98 /4

Gujarat Technological University, India — *July 2016 - June 2020*
Bachelor of Engineering, Computer Engineering — GPA: 4/4

TECHNICAL SKILLS

Languages & Tools	Python, JavaScript, Keras, Tensorflow, PyTorch, Scikit-Learn, AutoML, NLTK, OpenCV
Databases & Storage	MongoDB, DynamoDB, ElasticSearch, Redis, Neo4j, MySql, MinIO, S3, Azure Data Tables
Cloud Technologies	Amazon Web Services(AWS), Google Cloud(GCP), Microsoft Azure, IBM Cloud, Serverless

WORK EXPERIENCE

Research & Development Team Lead — May 2022 - Present
OneForce Inc. — *Bellevue, Washington, United States*

- Developed a framework to create and mine an Ontology(Graph Database) structure of all the keywords, phrases and meanings extracted from the raw text of millions of websites and articles, and creating relations between entities.
- Led the effort to build and deliver solutions powered by AI for Automated Smart Recruitment and Lead Generation using Serverless framework, ECS Fargate, Lambda, Step functions, DynamoDB, OpenSearch and Amazon API Gateway on AWS.
- Built and led an agile team of UX and backend engineers throughout prototyping, planning, designing and implementation of Machine Learning powered features such as Email Sentiment Detection and Concept Classification in the application layer.

Machine Learning Operations Engineer — October 2021 - Present
Palitronica Inc. — *Waterloo, Canada*

- Led the deployment of ML algorithms on Kubernetes Cluster using Docker, ArgoCD, Helm Charts and HashiCorp Vault.
- Modernized ML-stack by adopting model tracking and monitoring frameworks to save 60% time using CI/CD pipelines on scale.
- Architected and implemented distributed big data infrastructure using Minio, ElasticSearch, Azure platform and Drone CI.
- Managed CI/CD pipelines for multiple services including SQL Server, Grafana, Prometheus, and Proxmox Virtual Environment.

Senior Data Scientist — September 2021 - December 2021
OneForce Inc. — *Bellevue, Washington, United States*

- Strategized and developed modules for aggregating multiple data sources for professional contact records to create a Model-of-the-World graph structure using Neo4j. Created custom knowledge retrieval library using APOC and Cypher.
- Designed and developed the data integration and augmentation pipelines for automating large networking campaigns on AWS.
- Built an AI framework for knowledge mining and record deduplication of LinkedIn company and people profiles.

Senior Data Scientist — October 2020 - August 2021
Axiom IO, Inc. — *Hyderabad, India*

- Led the development of porting the TMDB database to a graph structure for knowledge mining and information retrieval.
- Created text clusterisation and classification models using machine learning and natural language processing for website data and deployed the end-to-end solution on millions of records using DynamoDB, S3, proxy solutions and lambda functions.

CERTIFICATIONS

AWS Certified Machine Learning - Specialty — *February 2023 - February 2026*
MLS-C01, Speciality Level — Competencies: 4/4

AWS Certified Solutions Architect — *April 2022 - April 2025*
SAA-C02, Associate Level — Competencies: 4/4

PROJECTS

Image-Text Combined Embedding for Image-Text Search | *Tensorflow, Scikit Learn, NLTK*
Implemented robust method to learn image-text joint embeddings by optimizing Bi-directional ranking and preserving structure between matching pairs using Transfer Learning. Achieved 15% faster training time as compared to State-of-the-art models.

Adversarial Pretraining with VICReg, a Self-Supervised Learning Method | *CUDA, Pytorch, NumPy*
Designed a innovative evasion attack to fool TRADES, the state-of-the-art method for training an adversarially robust deep neural networks. The attack achieves a robust accuracy of 95.1% on the MNIST dataset (6th place on NeurIPS leaderboard).