

Muthu Kamalan

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Objective —

Seeking an Engineering role that fosters innovation and offers positive growth environment for accomplishing projects

Skills

Languages Python, Bash, SQL, Javascript
Automation Selenium, Apache-Airflow
ML utilities numpy, pandas, xgboost, Pytorch, Torchserve

OS Linux, Mainframe
workflows Git, Docker, DVC
Cloud AWS-S3, EC2, Sagemaker, ECR, Lambda

Experience

OJCommerce

Jun 2023 – present

Data Scientist

Individual Contributor II

Project: Bids Pricing Automation

- Collaborated with cross-functional stakeholders to gather requirements and enhance the price bidding process, driving significant improvements in buy-box win rates.
- Built automated data pipelines to crawl, ingest, transform and fallback buy-box data from the Amazon Marketplace in real-time with continuous monitoring.
- Developed a ML model utilizing Ensemble XGBoost to predict optimal bid prices for vendors to secure the buy-box
- Achieved a significant 68% successful conversion rate for bid pricing decisions by automating the end-to-end process.

Selenium, JavaScript, Docker, Apache-Airflow, AutoML, XGBoost, Prometheus, Grafana

Project: Products Classification

- Designed a system that liaised with catalog team to quickly onboard products from different vendors
- Annotated and Trained Neural network model on large scale for product classification achieving SOTA accuracy
- Optimized model inference by transitioning from EC2 to Lambda, significantly reducing costs while maintaining performance.
- Accelerate data procurement workflows by implementing Deep Learning models enables 92% reducing manual intervention and accelerating product on boarding to respective marketplaces workflows.

Buildpack, Pytorch - Transformers, CVAT-tool, Lightning, AWS, TorchServe

Project: RAG Based System

- Utilized LlamaParse to parse email chains from Freshdesk and implemented a hybrid search solution combining a rerank model with BM25, enhances retrieved information for customer email summaries.
- Leveraged OpenAI API to streamline summary generation, reducing customer support response times by 30% and improving overall efficiency.
- Applied streaming techniques to minimize latency, enabling real-time processing and delivery of summaries, ensuring a seamless experience

Huggingface, LlamaIndex, ChromaDB, OpenAI API

Mathco

Dec 2022 – Jun 2023

Associate Data Scientist

Client: Walmart

- Collaborated with engineering teams to implement data-driven solutions that enhanced customer experience
- Performed statistical analysis on customer support data to identify trends, patterns, and areas for improvement

Statistics, AWS Services, Tableau

Tata Consultancy Services

Sep 2020 - Nov 2022

Database Administrator (System Engineer)

Client: Fifth Third Bank

- Monitored and optimized DB2 SQL query power consumption, calculating resource usage for downstream teams and creating visualizations to provide actionable insights.
- Performed routine DB2 database maintenance on IBM Mainframe and report generation to support business processes.
- Developed and executed shell scripts, PowerShell, and Python3 scripts to automate manual efforts.
- Conducted regular vulnerability assessments and applied patches to secure systems
- Provided on-call support for critical issues and worked on root cause analysis for incident resolution

DB2 Mainframe, Python3, Bash, SQL, Powershell

Projects

CLIP Based Model

- Deployed a Diffusion CLIP model using TorchServe, integrated with Next.js and FastAPI at the microservice level, enabling seamless model serving.
- Implemented Kubernetes (K8s) on AWS for container orchestration, enhancing scalability and resilience of the deployment.
- Incorporated observability practices to monitor and improve system performance, including logging, metrics, and tracing.
- Utilized gRPC protocol for efficient communication, coupled with asynchronous operations to optimize response times and system throughput.
- source: <https://github.com/Muthukamalan/MLOps-at-GenAI/>

Education

<i>The School of AI - Bengaluru</i>	<i>May-2023</i>
<i>Scaler Technology - Bengaluru</i>	<i>2022-2023</i>
<i>Sona College of Technology - Salem</i>	
- BE in Electrical Engineering, Anna University - July 2016 - August 2020 - CGPA:: 81.3%	
<i>Nadar Higher Sec School - Kovilpatti</i>	
- June 2015 - March 2016 - percentage:: 86.75%	

Certifications

10x Enginner - Ojcommerce Spot Award
Voluntering - TeamEverest
Sports - SGFI Handball