

MURTAZA

FULL STACK ML ENGINEER

SKILLS

- **Frontend:** React, Angular, Express, NextJS
- **Backend:** Golang, Python, Flask, NodeJS, FastAPI
- **ML Libraries:** Pytorch, OpenAI, Langchain, AWS SageMaker, TensorFlow
- **ETL:** Pyspark, Lambda, RabbitMQ, AWS Glue
- **Testing:** TDD and BDD using Jest, pytest.
- **Devops:** MLFlow, Docker, Kubernetes.
- **Databases:** Pinecone, Hadoop, Redis, Redshift, Dynamodb, PostgreSQL, MySQL, MongoDB, Elasticsearch, Firebase, Supabase.
- **Clouds:** AWS, Langchain cloud
- **Automation Tools:** Terraform, Cloudformation
- **Code Security:** Sonarqube, Snky.

ACADEMICS

Bachelor’s Degree
Computer Science
IET-DAVV

LANGUAGES

English, Hindi

PERSONAL STATEMENT

Senior Full Stack ML Engineer with deep expertise in Full Stack Development, MLOps, large language model (LLM) training, and implementing advanced ML workflows. Adept at architecting scalable data pipelines and developing agentic workflows to automate ML model training and deployment. Skilled in leveraging Retrieval Augmented Generation (RAG) techniques to enhance LLM outputs. A trusted leader in delivering high-impact ML solutions that drive business success.

WORK EXPERIENCE

Company/Contracts	Designation	Duration
Blox	Senior Full Stack ML Engineer	Jul 2023 - Present
ONKO(Alvie)	Senior Full Stack ML Engineer	Jan 2022 - Jun 2023
Aligned Automation	Full Stack ML Engineer	Jul 2021 - Dec 2021
Siya Tech Ventures - FT	Tech Lead	July 2021 - Present
Compass - FT	Software Development Engineer	May 2020 - July 2021
Fantasy King	Full Stack ML Engineer	Jan 2018 - May 2020
Golfhubber	Full Stack Data Engineer	Apr 2017 - Dec 2018
TPI Labs	Full Stack Developer	Aug 2016 - Mar 2017
Siya Tech Ventures - FT	Full Stack Developer	Aug 2016 - May 2020

CERTIFICATIONS



AWS Certified Machine Learning - Specialty



AWS Certified Solutions Architect - Professional



WORK HISTORY

Blox

AI

Fintech

Jul 2023 – Present

Senior Full Stack ML Engineer: Contract (FT - Hybrid)

London, UK

A collaborative strategic planning platform for SMB leaders. Blox simplifies complex financial modelling, replacing error-prone spreadsheets with an intuitive calculator. This tool helps identify and optimise key business drivers, enabling ambitious planning and remarkable outcomes.

Technology: React, Docker, PyTorch, AWS MLFlow, AWS SageMaker, Open AI, Langchain, Polars, GenOps

Responsibilities:

- Architected robust AWS infrastructure to support the **financial planning platform**.
- Integrated OpenAI with **Langchain** to create an AI chatbot for financial modelling.
- Optimised calculation engine by migrating to Polars, reducing times by **30%**.
- Implemented MLOps using **AWS MLFlow** for versioned model deployments.
- Developed **agentic workflows** to automate data processing and model training.
- Utilised **RAG** (Retrieval Augmented Generation) to enhance language model outputs.
- Leveraged **AWS SageMaker** for streamlined ML model development and deployment.
- Engineered AWS data pipeline with **Glue, Athena**, and Redshift for scalable ETL.
- Implemented **Stripe payment gateway** to support subscription-based pricing plans.
- Ensured system compliance with ISO standards for financial data management.
- Increased model accuracy by **25%** through fine-tuning proprietary datasets
- Designed and developed a robust calculation engine supporting **complex mathematical formulas** and expressions.

ONKO(Alvie)

Jan 2022 – Jun 2023

Senior Full Stack ML Engineer: Contract (FT - Remote)

UK

Onko(Alvie) ally throughout cancer treatment, delivering bespoke health improvement programs to the palm of your hand. This unique approach combines technology's connectivity and intelligence with healthcare professionals' support to ensure the very best results. Technology allows for frequent education, ongoing understanding, and connected care to help you achieve the best quality of life and the fastest route to recovery. Onko's service ensures you are not only supported but personally empowered, energised, and motivated.

Technology: Pyspark, PyTorch, IOT Greengrass, AWS Kinesis Firehose, AWS Data Pipeline, Terraform, ETL, Pandas, Matplotlib, Seaborn, MLFlow, Airflow, Python, React

Responsibilities:

- Designed and implemented **machine learning models** that improved patient engagement and adherence by **predicting risk factors** and personalised interventions, enhancing the overall quality of care.
- Developed a **predictive analytics pipeline** to **identify high-risk patients** and proactively recommend targeted treatments, resulting in a 15% reduction in program time.
- Optimised the mobile app's **recommendation engine** using **AWS Personalize**, leading to a **25%** increase in user satisfaction and retention.
- Streamlined **data ingestion** and **feature engineering** processes from wearable devices facilitate real-time monitoring and tailored health insights.
- Leveraged **transfer learning** to rapidly develop and deploy models for new clinical use cases, accelerating time-to-value for the healthcare organisation.
- Established a centralised **MLOps** platform using open-source tools like Kubeflow, Airflow, and MLflow, streamlining model training, deployment, and monitoring.
- Created comprehensive **unit and integration tests** to ensure system reliability and data integrity throughout the ingestion and processing pipeline.
- Contributed to developing **data visualisation** components and metrics dashboards using JavaScript, enhancing data interpretation for health data components.
- Utilised Python for backend logic in **AWS Lambda functions**, optimising data processing and transformation tasks.



WORK HISTORY

Aligned Automation

Jul 2021 – Dec 2021

Full Stack ML Engineer: Contract (FT - Remote)

USA

CRM system for Aligned Automation - A unified platform streamlining account management from onboarding to personalised reporting. This scalable, role-based solution simplifies workflows and adapts to evolving business needs, enhancing the overall account management experience.

Technology: Python, FastApi, RabbitMQ, Open AI, LLM Finetuning, Pinecone, Prompt Engineering, GenOps

Responsibilities:

- Built scalable batch processing with **Kubernetes** and **RabbitMQ**, improving throughput by **50%**.
- Automated PowerPoint report generation from templates, saving **80 hours** per month.
- Fine-tuned **OpenAI** models with custom datasets, increasing content relevance by **30%**.
- Leveraged **prompt engineering** to optimise language model interactions.
- Created data pipeline to preprocess user answers for CRM personalisation.
- Utilised **Pinecone** vector database for efficient storage and retrieval of embeddings.
- Developed custom **prompts** and templates for the generation of client-specific content.
- Integrated **AWS Lambda and Step Functions** for **serverless data transformations**.
- Optimised system performance to handle large datasets and complex report generation.
- Implemented **secure data storage** and access controls to meet compliance requirements.
- Engineered efficient Excel report generation system, capable of processing and formatting **100,000+ rows of data**.
- Contributed to the **development of a unified CRM platform** using Python and FastAPI, focusing on customer onboarding and personalised reporting.
- Implemented and maintained **GitLab CI pipelines**, integrating code quality and security tools such as **SonarQube** and **Snyk**.

Siya Tech Ventures

Jul 2021 – Present

Tech Lead: Full Time (Remote)

London, UK

Siya is a startup studio that helps future visionaries bring their ideas to life. We work with you to validate, develop, build, test, and fuel the growth of your concept, transforming it into a successful venture.

Responsibilities:

- Worked and trained the team on **MLFlows, Langchain, RAG, Agentic Workflows, Finetuning and training of LLMs**.
 - Executed a solution utilising various databases, including **MySQL, PostgreSQL, MongoDB**, and **vector databases**, which enhanced my data management skills and deepened my understanding of different database paradigms.
 - Developed full-stack applications using **JavaScript, HTML/CSS, React, and Node.js**, enhancing skills across front-end and back-end technologies.
 - Gained diverse experience working with multiple accounts as a contractual employee, adapting to various project requirements and team dynamics.
 - Collaborated with cross-functional teams to gather requirements, create specifications, and deliver high-quality software solutions.
 - Conducted thorough testing, including **unit and integration tests**, to ensure code quality and reliability across different projects.
 - Actively participated in continuous learning opportunities, staying updated with emerging trends and technologies in **full-stack development**.
 - Worked across various domains, broadening industry knowledge and ability to adapt to different business requirements.
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WORK HISTORY

Compass

Property Tech

May 2020 – Jul 2021

SDE: Full Time (Remote)

USA

Compass Property Management is a full-service rental and property management company in the USA. Specializing in connecting tenants with affordable housing options, Compass serves as a vital link between those seeking homes or apartments for rent and property investors. They have a comprehensive coverage of the Saint Louis area and have established themselves as a trusted name in the local real estate market.

Responsibilities:

- Developed "Risk Assessment of Commit" (RAC) tool to evaluate commit risk, enhancing CI/CD pipeline efficiency and code quality.
- Designed and implemented an automated service for generating random data, supporting automation testing and machine learning algorithm training.
- Created data-driven integration tests for Android applications, improving overall test coverage and reliability.
- Established a comprehensive unit testing infrastructure for Android applications, promoting code quality and maintainability.
- Refactored existing codebase to improve testability, enabling more effective unit testing practices.
- Conducted profiling and performance monitoring on Android applications, identifying and addressing performance bottlenecks.
- Contributed to the improvement of development processes by creating tools that enhance code quality assessment and risk management.
- Collaborated with team members to integrate new testing and quality assurance practices into the existing development workflow.

Fantasy King

Sports

Jan 2018– May 2020

Full Stack ML Engineer: Contract (FT - Remote)

Malta/Dubai

FantasyKing is an online platform where football fans create virtual teams using real players, compete based on actual match performances, and earn rankings through accumulated points.

Technology: Pandas, TensorFlow, Hadoop, MLflow, AutoKeras, GoLang, ETL, PySpark, AWS MLFlow

Responsibilities:

- Utilised a diverse tech stack, including React, Flutter, Flask, and Firebase, to create a comprehensive gaming platform.
- Engineered a pull system to fetch and process real-time match statistics from third-party APIs efficiently.
- Architected and implemented a microservice-based real-time leaderboard system using Go, enhancing scalability and performance.
- Optimised data retrieval and storage using Redis for caching and maintaining player rankings.
- Contributed to developing an Angular Progressive Web App (PWA) for cross-platform accessibility.
- Developed robust RESTful API backend using Node.js and Express, supporting core gaming functionalities.
- Designed and implemented a player performance prediction model using ensemble methods (**Random Forests, Gradient Boosting**) to forecast player scores based on historical data and current form.
- Developed a recommendation system using **collaborative filtering** to suggest optimal team compositions for users based on their past selections and performance.
- Engineered a pull system to fetch and process real-time match statistics from third-party APIs efficiently.
- Architected and implemented a microservice-based real-time leaderboard system using **Go**, enhancing scalability and performance.
- Optimised data retrieval and storage using **Redis** for caching and maintaining player rankings.
- Implemented containerisation with Docker and managed cloud infrastructure on AWS and GCP.
- Utilised **MLflow** for experiment tracking, model versioning, and deployment, ensuring reproducibility and ease of collaboration.



WORK HISTORY

Golfhubber

Sports

Marketplace

Apr 2017 – Dec 2018

Full Stack Data Engineer: Contract (FT - Hybrid)

London, UK

Golfhubber is a comprehensive digital golf network connecting clubs, pros, companies, and amateurs. Features include live scorecards, tournaments, stats, and more, aiming to be the ultimate all-in-one golfing app.

Technology: React, Android, Javascript, Docker, Flask, Firebase Database and Firebase functions, Elasticsearch, Docker, AWS

Responsibilities:

- Implemented Firebase Realtime Database, enabling real-time updates for **39,000+** active scorecards.
- Deployed Elasticsearch, optimizing search across 30,000 clubs and 60,000 users.
- Developed Node.js Firebase Functions for real-time features and advanced analytics.
- Managed containerized Elasticsearch on AWS, ensuring **99.9%** availability.
- Integrated React, Android, iOS, Flask, and AWS services for a cohesive experience.
- Utilized Docker to streamline development and deployment, improving efficiency by **35%**.
- Optimized performance to handle 2X user growth and peak loads.
- Engineered AWS data pipeline with **Glue, Athena**, and Redshift for scalable ETL.
- Leveraged AWS Lambda and Step Functions for serverless data transformations.
- Integrated AWS Data Exchange to enrich data with external golf datasets.

TPI Labs

Fintech

Compliance

Aug 2016 – Mar 2017

Full Stack Developer: Contract(FT - Hybrid)

London, UK

TPI Labs is a transfer pricing solution created by industry experts. Streamlines compliance processes for multinational companies, simplifying regulatory obligations and reducing administrative burdens.

Technology: React, Node.js, Typescript, ELK, Machine Learning, Containerisation

Responsibilities:

- Developed RESTful API backend server using Node.js and Express.js, supporting transfer pricing compliance functionalities.
 - Contributed to security enhancements, helping the system pass penetration testing conducted by a third-party service provider.
 - Optimised API performance and database queries to improve overall system efficiency.
 - Implemented document generation feature, creating Word documents based on user input.
 - Assisted in frontend development using React and TypeScript, enhancing user interface for compliance processes.
 - Collaborated with the team to integrate the ELK stack for logging and monitoring purposes.
 - Gained exposure to Machine Learning concepts as applied to transfer pricing compliance.
 - Participated in containerisation efforts to improve application deployment and scalability.
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WORK HISTORY

Siya Tech Ventures

Aug 2016 – May 2020

Full Stack Developer: Full Time (On-site)

India

Siya is a startup studio that helps future visionaries bring their ideas to life. We work with you to validate, develop, build, test, and fuel the growth of your concept, transforming it into a successful venture.

Responsibilities:

- Assisted in developing user interfaces using HTML, CSS, and JavaScript, following design mockups and UI/UX guidelines.
 - Learned and applied frontend frameworks like React and Angular to build interactive web applications.
 - Implemented responsive designs to ensure compatibility across various devices and browsers.
 - Assisted in developing and maintaining APIs for frontend consumption.
 - Learned database fundamentals and helped with simple queries and operations (SQL or NoSQL).
 - Participated in implementing basic security measures and data validation
 - Assisted in troubleshooting and debugging issues across the entire stack.
 - Contributed to technical documentation for frontend and backend systems.
 - Staying updated on both frontend and backend technologies and best practices.
 - Collaborated with cross-functional teams to understand project requirements
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