

Umar Moiz

MACHINE LEARNING OPS ENGINEER · SOFTWARE ENGINEER

Singapore

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“Engineering is the essential bridge that transforms the potential of AI into real-world solutions, powering innovation and driving progress in every sector.”

Summary

MLOps Engineer at DBS - the Development Bank of Singapore

Technical skills: Python, Java, Javascript/Node.js/React.js, C/C++, Solidity, Mongo, Express, Unix/Linux, Verilog, ROS, Numpy,Pandas, Tensorflow, PyTorch, HTML, CSS, Git, Linux, Docker

Languages: Fluent in English, Malay; Limited Working Proficiency in Arabic, French

Design Skills: Figma, Balsamiq

Certifications: AWS Solutions Architect Associate SAA-C02, AWS Certified Cloud Practitioner, Associate Google Cloud Engineer, Orbital Apollo 11

Hackathons: Hack SG, Beyond Health Hack(Finalist), Hello World Hack Ground Zero 2019/2020, Hack and Roll

Work Experience

Development Bank of Singapore (DBS)

Singapore

ML ENGINEER

August. 2022 - Present

- Developed and deployed an end-to-end virtual assistant tool for Customer Service, streamlining call summarization and response generation. This initiative significantly boosted productivity by optimizing workflows and expediting customer interactions.
- Led model summarization and performance optimization for models i.e Mistral and FlanT5, by employing FastT5, ONNX, and vllm with a focus on quantization and batch processing.
- Achieved a remarkable surge in concurrent users from 20 to 6000, ensuring optimal GPU utilization and enhancing overall system efficiency.
- Conducted targeted experiments with Whisper for batch processing, evaluating its suitability for call center use cases. Explored its capabilities in both real-time and batch transcription to assess its effectiveness in enhancing communication processes within a call center environment.
- Drove efforts to optimize A100 and H100 GPU utilization, aiming for peak performance and efficiency to meet computational demands effectively.
- Designed and Implemented a webcrawler tool leveraging LLM's and Google Cloud/Vertex to streamline Know Your Customer (KYC) processes, driving automation and efficiency in customer verification.
- Engineered and integrated vector databases and knowledge bases tailored to banking use cases, facilitating efficient storage, retrieval, and analysis of spatial and structured data.
- Explored the application of knowledge graphs and Neo4j for financial modeling, assessing their feasibility and potential for enhancing analytical capabilities within the banking sector

DNV Pte Ltd

Singapore

DATA ANALYST

Dec. 2020 - July. 2021

- Built and developed a company platform increasing efficiency by automating operations using the MERN stack(Mongo, Express, React, Node & Pusher)
- Designed and deployed a machine learning solution for fuel efficiency optimization to predict optimal vessel speed over ground using AIS data
- Advised clients on digital transformation process and adoption of technology
- Developed solutions to improve on Internal company processes utilizing python,automated scripts, numpy and pandas
- Analyzed robotic systems for remote surveys and inspections utilized for development of an industry standard baseline document
- Consulted stakeholders from the Royal Australian Navy and key industry clients when co-authoring a certification pathway document for Additive Manufacturing adoption in the Australian Navy.

Education

NUS(National University of Singapore)

Singapore

B.E. IN COMPUTER ENGINEERING

August. 2018 - July. 2022

- Modules: Software Engineering and Object Oriented Programming, Artificial Intelligence, Computer Vision, Natural Language Processing, Machine Learning, Blockchain Engineering, Real Time Operating Systems, Data Structures and Algorithms
- Co-Curricular: NUS Sailing Varsity Athlete, NUS Entrepreneurship Society, NUS Fintech Society