

Bilal Saleem

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SUMMARY

I am a team player with a strong work ethic and a desire to solve challenging real-world problems. Currently seeking roles in Software Engineering, Machine Learning Engineering, RL and Data Science.

WORK EXPERIENCE

IBM Software Engineer	06/2022 - 09/2024
Collaborated with IBM Research team to investigate media bias in film using NLP contributing to the advancement of Tech4Justice and its mission. Implemented StanfordCoreNLP library to classify for scripts using descriptors.	
IBM Graduate Consultant	06/2021 - 09/2022
Developed proof-of-concepts for Government clients ranging from performance testing to Red Hat Cloud deployments	
Northrop Grumman - Graduate Software Engineer	Oct 2019 - Oct 2020
Collaborated with software team to resolve C++ bugs in the flagship radio product, improving overall functionality.	
Freelance - Data Scientist	2024
Engineered end-to-end ML pipeline for tennis match prediction: feature engineering (15+ metrics), XG-Boost model, FastAPI serving layer, deployed on AWS Lambda, CloudWatch monitoring”	

PROJECTS

MSc Thesis - Reinforcement Learning for Ship Routing Optimisation

Implemented DDQN and DDPG for maritime route optimisation. Developed parallelised multi-resolution grid that reduced training times to minutes.

Image Processing Library

Led a 7 person team to develop 2D/3D image library using C++/CMake

Automatic Speech Recognition App

Working on an automatic speech recognition and voice chat assistant app, educating myself on finetuning, deploying and evaluating generative models.

EDUCATION

2024 - 2025	MSc Computational Science [Home Student Scholarship]	Imperial College London
2014 - 2019	MEng Mechatronics and Robotics [Placement Year]	at University of Leeds (2:1)

SKILLS

ML Engineering	PyTorch, scikit-learn, Hugging Face, Model Deployment, FastAPI
MLOps & DevOps	Docker, AWS(ECS, Lambda, EC2, S3), CI/CD (GitHub Actions), Weights & Biases
Data & Backend	Python, pandas, numpy, SQL, PostgreSQL, FastAPI
Frontend	Next.js, React, TypeScript,
C++	STL, openMP, CMake