

Shashwat Dalal

SENIOR MACHINE LEARNING ENGINEER, QUANTUMBLACK COMPUTING MENG, IMPERIAL COLLEGE LONDON

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shashwatdalal.github.io

WORK EXPERIENCE

QUANTUMBLACK (A MCKINSEY COMPANY) | SENIOR MACHINE LEARNING ENGINEER

September 2020 – Current | London, United Kingdom

- Individually **built a distributed optimiser** for a turbine OCM. Optimiser directly lead to +0.4% turbine efficiency (validated by CFD), in 1/20th the time, and half the cost. Optimiser used both **genetic and bayesian methods** and ran on a cluster of 20 machines using **Ray**.
- Lead a data engineering workstream for a large pharmaceutical live clinical trial optimization engagement. Built a feature engineering framework that unified historical and live features. The framework reduced two weeks of work.
- Tech lead for the simulation-based-optimisation group. Helped guide and shape 10+ client engagements across various industries (e.g. Energy / Automotive / Product Design).

BLOOMBERG | SOFTWARE ENGINEERING INDUSTRIAL PLACEMENT

April 2019 – September 2019 | London, United Kingdom

Containerizing Builds Build Solutions London Team

- Maintained **BuildStream**, an open source build and integration tool written in **Python**.
- Wrote a plugin to automate the creation of reproducible and layered **Docker** images.
Report: https://shashwatdalal.github.io/files/placement_report.pdf

BARCLAYS INVESTMENT BANK | SUMMER TECHNOLOGY ANALYST

June 2018 – September 2018 | London, United Kingdom

EDUCATION

IMPERIAL COLLEGE LONDON | COMPUTING MENG. (GRADUATED 1ST CLASS)

2016 - 2020 | London, United Kingdom

Academic Projects

- Effect of Non-Identically Distributed Data on Federated Learning for Next-Word Prediction:** Final year project.
Report: https://shashwatdalal.github.io/files/fl_fyp.pdf
Slides: <https://bit.ly/3bpAU8g>
- Aspect-based Sentiment Analysis with Goldman Sachs:** In a team of six, built an aspect-based sentiment analysis engine for the asset management engineering team. Back-end written in **Python** and database layer used **MySQL**, and **Microsoft Cosmos**.
Report: https://shashwatdalal.github.io/files/Software_Engineering_Project_Report.pdf
Code: <https://dev.azure.com/vapesoc/362%20Software%20Engineering%20Project/>
- MatchUps:** In a team of four, created a web-application where teams can register and find other teams to play recreational sports with based on proximity, rank, and availability. Project was thin-sliced, hence all developers were full-stack. Front-end was written in **React**, the back-end was written in **GoLang**, **MySQL** served as the database layer, and DevOps tools used for the project include: **Docker, Jenkins, AWS**. Additionally, took lead for **UX testing**.
Pitch + Code: <https://github.com/shashwatdalal/MatchUps>

Extracurricular Activities

- President of Imperial College London Data Science Society:** Lead a team of 15 to ensure UK's largest student data-science society runs smoothly. Assist with growth strategy, corporate sponsorship, budgeting, union-relations, and talent development. Used **GitHub Actions** and **AWS** to automate (i) website deployments (ii) moving members on to our mailing list. *Code:* https://github.com/shashwatdalal/new_icdss_members

SKILL-SET SUMMARIZED

TECHNICAL SKILLS

Java • Haskell • Python • C • SQL • GoLang
JavaScript • AWS • Docker • Jenkins
Data Science with Python • Linux • \LaTeX

LANGUAGES

English (Written/Spoken Fluency) • Gujarati (Spoken Fluency) • Japanese (Written/Spoken Conversational) • Spanish (Written/Spoken Conversational) • Hindi (Spoken Conversational)