

Fawaz Shah

Website: fawazshah.github.io GitHub: github.com/fawazshah

Experience

Bloomberg LP

SEP 2021 - PRESENT

Software Engineer, Index ESG Data

- Part of the ESG Data team in Bloomberg Indices, building tools to ingest ESG data, perform quality control, and expose via point-in-time APIs for use in calculating financial indices. Full-stack work using mainly C# and Postgres/MS SQL Server
- Developed a Data Browser web application to view data owned by our team, built using React/Typescript as well as Python/FastAPI for the back-end. Demoed to around 40 internal users, to positive feedback. Established the paved path for web development in our org, which has traditionally focused on Windows-only desktop application development
- Sped up data loading in the Data Browser by 30% by optimising an $O(n^2)$ data merging algorithm to be $O(n)$, and converted data to Apache Arrow format for better schema management
- Lead developer for the backend of a webpage to allow data administrators to QC and sign-off on ESG datasets. Developed endpoints to view ESG metadata, sign off data and add overrides to the data. Clarified expected behaviour of our API to the front-end team, and suggested improvements to how they call our API to improve the webpage as a whole

Software Engineer, Index Calculation (Equities)

- Helped develop a new system architecture to handle corporate actions and daily index calculations. Improved calculation speed by 20x by bulking up data retrieval/storage, minimising amount of data stored and optimising Rabbit messages
- Led migration of over 150 indices to this new system, keeping stakeholders in Product/Operations teams informed and performing stringent testing of the new system before migrating

Bloomberg LP

JUN - SEP 2020

Software Engineering Industrial Placement

- Worked in Commodities Navigation & Analytics, a team servicing commodities data to Bloomberg's analysts
- Added a feature to Amundsen, a dataset discovery web-app, to let analysts launch Jupyter notebooks with datasets auto-loaded into Pandas dataframes
- Incorporated historical price search and improved charting capabilities into one of the team's Bloomberg Terminal functions

Education

Imperial College London

OCT 2017 - JUN 2021

MEng Mathematics & Computer Science (Joint Honours)

- Awarded First Class Honours
- Thesis topic: Detecting Political Bias On Reddit With Transfer Learning
- Modules of interest: Natural Language Processing, Machine Learning for Imaging, Time Series Analysis
- Awarded a Merit in Japanese Horizons Level 2 Course