

# Osama Iqbal

Mumbai, India

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## Experience (6 Years, 2 Months)

### Canada Pension Plan, Investment Banking

Associate Software Engineer

Mumbai, India

February, 2022 – Present

- Led and Implemented OneTick Time Series Database Migration from on-prem to AWS cloud, creating and implementing custom AWS Architecture.
- Technologies: OneTick Timeseries, AWS DataSync, AWS Lambda, AWS EC2, AWS Aurora, AWS SNS, AWS SQS, AWS EFS, AWS Storage Gateway, C++ MFC.

### Nomura Services India Pvt. Ltd.

Associate Software Developer

Mumbai, India

May, 2020 – February, 2022

- Strengthened distributed grid computing to calculate all risks and aggregations, using spare compute cycles from more than 1000 computers in Nomura.
- Pioneered an easier deployment mechanism for computing grid packages to machines, saving 1 hour of support time per deployment.
- Technologies: Python, C++, Boost, Clang, C#, ASM, OpenMP, Intel Intrinsics, AVX2, Jenkins CI/CD, Docker.

Senior Software Development Analyst

October, 2018 – May, 2020

- Led end-to-end development of a business-critical engine, decoupling developers and business analysts, leading to 200+ rule change deployments per day which parses 130k+ live trades.
- Optimized rules engine, improving time from 15 seconds to 70 milliseconds per trade leading to decommissioning of HPC servers.
- Led the adoption of the rules engine for inter-system translations and communications between 4 systems.
- Technologies: Python, pandas, numpy, Cython, AST, Jupyter, Tibco EMS, Seaborn, Dash, VBA, TDD.

Software Development Analyst

July, 2016 – October, 2018

- Implemented Common Risk Interchange Format's (CRIF) Risk data aggregations for 12 legal entities, containing 500K data points each.
- Strengthened quant analytical library by adding 4 different cold-start multi-processing functions.
- Technologies: Python, PySpark, MapReduce, Hadoop, Dask, Flask, Django, multiprocessing and multithread libraries, TDD.

Software Development Intern

January, 2016 – July, 2016

- Conceived a GUI tool that makes FIX 4.4 protocol messages, sending 10k messages to an Exchange Simulator.
- Created a client-server socket-based distributed test-case runner configured on spare machines - running 7k test cases simultaneously.
- Technologies: Python, QuickFix, win32com, websocket library, PHP, Bootstrap, Javascript, jQuery.

## Education

### WorldQuant University

M.S. Quantitative Finance (80.0%/100.0%)

Mumbai, India

January, 2017 – January, 2019

### Sardar Patel Institute of Technology, Mumbai University

Master of Computer Application (GPA: 8.29/10.0)

Mumbai, India

July, 2014 – July, 2016

### Valia C.L. College of Science, Mumbai University

Bachelor of Science (Information Technology) (82.5/100.0)

Mumbai, India

July, 2011 – March, 2014

## Skills and Certifications

**Languages:** Python, C++, C#, SQL

**Technologies:** Pandas, Numpy, Dask, PySpark, Hadoop, Hive, MapReduce, Seaborn, Flask, Django, Cython, Boost, OpenMP, ASM, Intel Intrinsics, AVX2, Tibco EMS, Git, Github-Actions, Docker, Jupyter, Jenkins CI/CD, CMake, TDD.

**Certifications:** AWS Certified Developer Associate, Datacamp Data Scientist with Python.