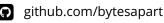
# Osama Igbal

Mumbai, India



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## Experience [5 Years 8 Months] -

#### **Canada Pension Plan, Investment Banking**

March 2022 - Present

Associate Software Engineer

• Led and Implemented OneTick Time Series Database Migration from on-prem to AWS cloud, creating and

implementing custom AWS Architecture. • Technologies: AWS, 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.

Mumbai, India

Mumbai, India

Associate Software Developer

May 2020 - March 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: C++, Boost, Clang, C#, ASM, OpenMP, Intel Intrinsics, AVX2, Jenkins CI/CD, AWS, Docker, TDD.

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, multiproc 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%)

Sardar Patel Institute of Technology, Mumbai University

Master of Computer Application (GPA: 8.29/10.0)

Valia C.L. College of Science, Mumbai University

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

Mumbai, India January 2017 - January 2019 Mumbai, India July 2014 - July 2016 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.