Osama Iqbal

Mumbai, India

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Experience *(6 Years, 3 Months)*

Canada Pension Plan, Investment Banking   **Mumbai, India**
Lead Associate Software Engineer   *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.   **Mumbai, India**
Associate Quantitative Developer   *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, 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   **Mumbai, India**
M.S. Quantitative Finance **(80.0%/100.0%)**   *January, 2017 – January, 2019*
Sardar Patel Institute of Technology, Mumbai University   **Mumbai, India**
Master of Computer Application **(GPA: 8.29/10.0)**   *July, 2014 – July, 2016*
Valia C.L. College of Science, Mumbai University   **Mumbai, India**
Bachelor of Science (Information Technology) **(82.5/100.0)**   *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.