

Senior KDB+ Developer

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Summary

Senior KDB+ developer with 5 years' experience providing critical DevOps support to large-scale tick database platforms. Proven track record with using new tools and technical developments to drive improvement throughout a typical software development lifecycle. Experience with taking the technical lead on projects where the work has required gathering specifications and data from end-users and implementing their requests to our stack. Supportive and enthusiastic team player who is dedicated to streamlining applications and strives to continually learn new techniques.

Skills

KDB/q, Python (Pandas & Flask), Bash, Linux, SQL, Jira, Maven, Nginx, TeamCity, IBM uDeploy, Agile development, Scrum, Git, Autosys, Bootstrap

Software Projects

Personal Project – insertleft.com

April 2021 – Present

- Python-Flask developed application that is used by a small number of users to host RPG character sheets for custom games and personal blog posts.
- Incorporated Google Captcha to both the frontend and backend to remove bot spam.
- Hosted on a personal cloud machine that utilises Nginx as its webserver.

Work Experience

Senior KDB+ Developer - Citi

December 2019 – Present

- Co-ordinated work with input from our quantitative analyst teams to standardise rates (US and EMEA government bonds) market data to enable easier accessibility and scale-ability of our data captures.
- Stabilised previously developed quant tick captures that were crashing daily and affecting the traders during critical trading hours. Involved gathering specs and working alongside our senior quant and separating out the various data feeds into separate processes wrapping a gateway layer around everything.
- Provide DevOps support on a multi-region data-stack with hosts located in NAM, EMEA and APAC regions and automated our releases pipelines such as updating machine crontabs, release symlinks and data clean-ups.
- Take the lead in a rotating cycle within our team's scrum structure and bi-weekly project management meetings with our end-users and I am a mentor within Citi's apprenticeship scheme.
- Spearheaded the decommissioning of deprecated 2.7 kdb+ sandboxes. Involved working directly with various teams to help update their queries and provide working alternatives for their use-cases.
- Developed and documented existing APIs that allow users without knowledge of our datasets or knowledge of KDB syntax, ways to query and join various market data datasets together.
- Implemented ETL processes to download the latest snapshot of data from external and internal sources using a mixture of python, bash and KDB+.
- Created an extensive set of integration tests to help with testing and monitoring of critical components and datasets to ensure any code change errors were caught before deployment.

KDB+ Developer - First Derivatives

February 2017 – December 2019

- Worked as a consultant for two multi-national banks during this employment period, details described below.
- Helped develop and lead interactive training courses that used Jupyter notebooks, that were delivered on-site to FD clients.

Standard Chartered Bank, July 2019 – December 2019

- Helped implemented machine learning technologies that were used to analyse intraday volatility with FX option transactions.
- Help drive the team towards a more coherent software development cycle with a heavy focus on using Jira.

Morgan Stanley, March 2017 – June 2019

- Developed python scripts to extract and clean Bloomberg Bulk Backoffice files from various Bloomberg SFTPs that were processed loaded to our backend database.
- Developed automatic monitoring scripts for our daily data feeds to ensure data quality issues were caught and end users were notified of any inconsistencies.
- Database maintenance such as schema changes, creating new tables and setting up new data feeds using business users' specifications.
- Implementing APIs in KDB and python to allow users to access, query and perform analytics on the various datasets within the database.
- Developed a system that queries daily reference data from various SAP/Sybase servers within Morgan Stanley to create one cohesive reference table that is updated daily via the use of various SQL joins.
- Provided L3 support to ensure 24/7 uptime of the database for all of Morgan Stanley's clients across all major time zones.

Education

Queen's University Belfast, 2011 - 2016

2:1 BSc (Hons), Physics

References are available on request.