Conor Donohue

Software Engineer

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Personal Profile

A hard working, highly motivated and dedicated kdb+ developer with a passion for developing innovative programs that expedite the efficiency and effectiveness of organizational success. Well-versed in technology and writing code to create systems that are reliable and user-friendly. Proven team leader with the ability to motivate, educate, and manage a team of professionals to build software programs and effectively track changes. Willingness to relocate and have working rights to the EU/UK and Australia currently.

Technical Skills

Languages: kdb+/Q, Python, Bash, SQL, Java Environments: Linux, Windows

Tools: Kx Platform, Git, Jupyter Notebooks, Eclipse Methodologies: Agile, Waterfall, Feature-Driven

Cloud Platforms: AWS, Azure Other: Machine Learning

Employment History

Kx/First Derivatives:

Senior kdb+ Developer for Market Surveillance

Dates Employed: May 2019 – Current Location Greater: Sydney, Australia

Description:

Worked as a lead kdb+ developer with the Market Regulator Team. The role allowed me to deliver the development, upgrade and analysis of alerts and reports to help Business Users detect market infringement patterns

- Developed Machine Learning examples using Market Data which allowed Business users to leverage Python ML frameworks within kdb+
- Delivered Backtesting framework and Dashboard to allow users, to fine tune alert parameters, save/view previous results and compare differences
- Produced FICC dataloaders, analytics and dashboards to allow Business Users to query and analyse new datasets to investigate Market Abuse
- Created chained tickerplants to establish parallel datafeeds from on prem servers to AWS which took data from kdb+ V2.8 and published via TLS to kdb+ V4. Leveraged cron jobs to establish connection after a server restart
- Built data loaders to ingest e-communications data and load/extract attachments
- Upgraded legacy code to newest version of kdb+ and Kx Platform while simultaneously migrating to AWS
- Created build and deployment framework which leveraged, Jenkins, Azure DevOps and Git

Team Lead for kdb+ Support Cluster

Dates Employed: Feb 2019 – May 2019 Location Greater: New York City Area

Description:

Worked as a team lead supporting six different projects while based in New York. This role required managing a team of four other developers, release planning as well as development of new features for the individual platforms. The projects supported ranged from but were not limited to

- Surveillance Implementation for US Based Exchange.
- Real time HTML5 interface for Mexican Stock Exchange displaying market/broker information.
- Maintaining and support Pharmaceutical data warehouse.

Kdb+ Developer for Major US Exchange

<u>Dates Employed:</u> Sep 2018 – May 2019 <u>Location:</u> Greater New York City Area

Description:

Worked as a kdb+ developer with the Market Quality Team for a US stock Exchange. The role centred on the fine tuning and rewriting of their alerts to detect market infringement patterns.

Main Responsibilities included:

• Tuning Alerts. This required back-testing of alerts using historical data and comparing results against known true and

false positives.

- Creating new alert logic from specs given by the business and integrating this into the existing Surveillance Architecture.
- Replicated kdb+ tick flow of data to recreate the triggering of alerts and debug results.
- Analysed Market data and trades to detect trends which fall trigger market infringement results
- Creating new alerts to detect cancelled orders before the close of market
- Creation of alert report which returned detailed statistics on the alerts triggered throughout the system

Lead kdb+ Developer on Pharmaceutical Project

<u>Dates Employed:</u> Aug 2017 – Mar 2019 <u>Location:</u> Greater New York City Area

Description:

Worked as a kdb+ developer on maintaining and supporting data warehouse. All of client's data was stored in kdb+ which contained source data from multiple external vendors. Analytic tools were built on top of kdb+ to allow non-kdb+ users to access and manipulate data easily.

Main Responsibilities included:

- Ensuring the integrity of the daily, weekly, and monthly loading processes. These loading processes interact with various systems including R, SAS, and Oracle.
- Creating and maintaining multiple historical databases using amended .Q.dpft, keys, attributes and soft links.
- Supporting kdb+ application which handles complex, customizable queries from front end users.
- Developed real-time monitoring for various business-critical kdb+ applications and loading processes. Automated email and messaging interfaces were also developed.
- Integrating with other technologies such Oracle and Apex and handling the transfer of data to/from these technologies by using ODBC connections along with other solutions.
- Upgraded kdb+ and Delta Product suite to latest version in both development and production environments.

Pre-Sales Engineer

This role revolved around meeting clients face-to-face and demonstrating kdb+ or the Kx Platform. The position also required presentations to be given at various Meetup events around North America where attendee size ranged from 30-50+ people

Trainer - Internal & Client Training

Lectured kdb+/q to both beginner and intermediate level kdb+ developers as part of the q Fundamentals training programs. The course content has been designed to educate across a range of topics including: RDB/HDB, IPC and Advanced Message Handling, qSQL, Data Persistence, Attributes, Functional Queries

Also delivered training courses and created training material on Kx Control, Analyst, Dashboards aswell as Fusions APIs such as embedPy and EmbedR.

Valeo Vision:

Is Intern

<u>Dates Employed:</u> Jan 2016 – August 2016 <u>Location:</u> Tuam, Co. Galway, Ireland

- Automated the installation of various software's onto the production floor using Batch scripts
- Delivered a live database which monitors Quality Assurance files and add product information to database
- Worked with AWS technologies to develop the storage and architecture of product images

Ericsson:

Description:

Software Intern

<u>Dates Employed:</u> June 2015 – August 2015 <u>Location:</u> Athlone, Co. Westmeath, Ireland <u>Description:</u>

• Created new Webpages and features for internal Website using HTML, CSS, JavaScript and jQuery

Education

2018-2019 Graduated from Udacity Machine Learning Engineer Course.

2013-2017 Bachelor Electronic and Computer Engineering, National University of Ireland, Galway.

- 2017 Final Year Results: **Overall Result for Year**: 78% 1st class honours.
- 2016 Third Year Results: **Overall Result for Year**: 78.1% 1st class honours.
- 2015 Second Year Results: **Overall Result for Year**: 79.75% 1st class honours.
- 2014 First Year Results: **Overall Result for Year**: 77.50% 1st class honours.

2009-2013 Leaving Certificate, St. Joseph's College, Galway. Overall Points: 570 (out of 625)