Shubham Raj

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Software Developer

EXPERIENCE

UBS | Authorised Officer
TECH STACK - kdb+/q , nodejs
February 2021 – Present | Pune

Global Capital Access | Team size : 10
- Enhanced UBS's capital commission system - Carbon. Worked on improvement in the facilitation selection logic.
- Worked on rule engine for IOI generation.

COMMONWEALTH BANK OF AUSTRALIA (EXCELIAN) | KDB+ Developer
TECH STACK - kdb+/q , KX Tools, Python
April 2020 – February 2021 | Bengaluru

Automated Trade Surveillance | Team size : 15
- Lead a team of five and coordinated with two outsourced teams to ensure timely release.
- Develop algorithms to generate post trade alerts based on certain benchmarks and rules.

HSBC ELECTRONIC DATA PROCESSING INDIA PVT LTD | Associate
TECH STACK - Python, HTML, js, kdb+/q
June 2018 – April 2020 | Bengaluru

Report Utility Tool | Team size : 1
- The challenge of managing quant reports was tackled by unifying them by developing a robust system with LDAP auth.
- Product was made asynchronous using publisher-subscriber model.

THOR Stress Test Integration | Team size : 2
- Stress testing feature was added to HSBC's execution algorithm back tester - THOR
- Reuter Historial data was fetched through the TRTH api and persisted in the disk, THOR was rewired to this new data source. TCAs was written to compare between Simulations.

Market Microstructure | Team size : 1
- Monthly and Daily Market Statistics were calculated from historical database and splayed.
- Load-balancer was designed to regulate the incoming traffic.
- Cache layer was introduced and HTML frontend was designed later to which data was published.

BACCS - Capital Commission System | Team size : 2
- Capital commission system was centralized under BACCS, a program to manage subroutines.
- Features like user authentication, ticker onboarding, Risk book management and PNL calculations were implemented.
- Weekly status update was configured for performance tracking.

TREEBO HOTELS | Software Developer
TECH STACK - PYTHON (DJANGO, FLASK), POSTGRES
June 2017 – June 2018 | Bengaluru

Inventory Throttling Service | Team size : 5
- In order to get control on the inventory we are selling the inventory was throttled with reference to certain rules.

Travel Agent Automation | Team size : 2
- Objective was to automate the corporate booking flow, involving generation of partial payment links, reminding their payment and cancellation of booking if the customer haven't paid upon reminders.

ITRON PRIVATE LIMITED | R&D Intern
June 2016 – July 2016 | Bengaluru

- Involved designing of an algorithm that estimates the optimal position of collectors and access points of a wireless sensor network, taking in consideration of network constraints. Used clustering techniques such as K-Means and MST.

SOLARWAALE | WEB DEVELOPER INTERN
June 2015 – July 2015 | Gurugram
- Developed an online portal displaying all the projects done by the company on an interactive map. The data was extracted from database and Google Maps api was used to realize the same.

EDUCATION

INDIAN INSTITUTE OF TECHNOLOGY | B.TECH IN ELECTRONICS AND COMMUNICATION ENGINEERING
May 2013 - May 2017| Roorkee, UK • CGPA: 69%

DELHI PUBLIC SCHOOL | Science
Batch of 2013 | Bokaro Steel City, JH
X CGPA : 98% • XII CGPA : 89%

PROJECTS

PASSWORD HARDENING - AGRICULTURE INFORMATION SYSTEM | B.Tech Project
July 2016 - May 2017 | Indian Institute of Technology, Roorkee
- JAVA application was made to implement the above by capturing behavioural biometrics such as : typing speed, inter key pattern to characterize each user.
- Latter the characteristic adapted on every successful login.

3D LASER SCANNER | SHRISTI 2014
July 2015 - Dec 2015 | Indian Institute of Technology, Roorkee
- 3D laser scanner was made using line laser, a webcam, a stepper motor and an arduino.
- The data collected was processed in matlab to generate a 3D model.

LANGUAGES

PROGRAMMING
Over 5000 lines:
KDB+/q • Python • Java • HTML
Over 1000 lines:
CSS • C# • JS • LaTeX
Familiar:
Android • MATLAB

SPOKEN & WRITTEN
Native fluency:
English, Hindi
Reading fluency:
Sanskrit

EXTRA CURRICULAR

SPIC MACAY | IITR
- Designed the official website of SPICMACAY IIT Roorkee Chapter.
- Wincon 2015 : On December 2015 SPICMACAY IIT Roorkee chapter organised a 7 days convention Winter national convention in which 1200 delegates from all over India came to witness the event. I being the part of the registration team was responsible for registering delegates, assigning them IDs and sending them regular emails related to event. These were done through Python scripts.