Khushboo Singh Featured

Professional Data Scientist, currently working on a project analyzing stock markets using Machine Learning. I have 4.5 years of hands-on experience with one of the premier Japanese conglomerate, Sony India and MyTradeWall.

Current Designation: Data Scientist
Current Company: MyTradeWall
Current Location: Bengaluru / Bangalore
Pref. Location: Bengaluru / Bangalore
Functional Area: IT Software - Application Programming / Maintenance
Role: Software Developer
Industry: IT-Software/Software Services
Marital Status: Single/unmarried

Total Experience: 4 Year(s) 6 Month(s)
Notice Period: 1 Month
Highest Degree:

Key Skills: Deep Learning,Computer vision,Statistics,Data Management,Machine Learning,Python,Java,SQL,YOLO,pyt

Verified : **Phone Number |** **Email - id**

Last Active: 20-Jan-21 Last Modified: 20-Jan-21

Summary

Professional Data Scientist, currently working on a project analyzing stock markets using Machine Learning. I have 4.5 years of hands-on experience with one of the premier Japanese conglomerate, Sony India and MyTradeWall. I have been solving highly complex problems in Software engineering and Data Science, catering to areas like Unity, Android framework, Image Processing, Bluetooth and Deep Learning, enabling the organization to take better decisions in their quest to improve customer satisfaction.

Work Experience

MyTradeWall as Data Scientist
Dec 2019 to Till Date

Project: Portfolio Management and Asset Allocations
Building a model for portfolio rebalancing using AI
Prepared a dataset using Indian stocks from yahoo finance
For asset allocations, different techniques were used, like Classic optimization (Markowitz, Inverse Risk etc), PCA portfolios, Autoencoder portfolios, Hierarchical risk parity and Forecasting-based portfolios
The model was run for different time periods for better results.
Project: Stock Market Trend Using Sentiment Analysis
Developed a statistical model for stock recommendations using historical prices of stock data and daily stock sentiment from news headlines/tweets.
Used NLTK to clean and pre-process news article extracted from Newsapi and tweets extracted from Tweepy for sentiment analysis
Implemented Vader and Text Blob to generate an ensemble sentiment score and used liner interpolation to impute the missing values.
Leveraged stock price using a simple moving cross strategy along with sentiment scores to generate stock recommendations for the end user.
Project: Portfolio Optimization
Built a model to make portfolio optimization using Machine Learning and Statistics
Dataset was prepared using the end of day close price of stocks.
Built a statistical risk model using PCA
Used this model to build a portfolio along with 5 alpha factors.

Evaluated these factors using factor-weighted returns, quantile analysis, Sharpe ratio, and turnover analysis.
Optimized the portfolio using the risk model and factors using multiple optimization formulations.

Sony India Software Center as Software Engineer
Aug 2015 to Jan 2019

Project: Car License Plate Detection
Built the robust framework, capable of clearly and swiftly identifying the Car number plate.
Worked with Sony Tokyo team along with the US security department
Analyzed various deep learning frameworks for image processing and eventually trained a model using YOLO v2 and Darknet network for car license plate detection by keeping response time and accuracy a major criteria for model selection
Sony Proprietary Dataset was used for training.
Project: Bokeh effect for Sony Dual Camera
Worked in Sony Tokyo as an Expat engineer
Created a depth map of an image from a disparity information
With the depth map information, created a Bokeh effect on an image using a Gaussian filter and checked with different kernels to reflect the intensity of bokeh and the time taken to process it
As the Gaussian filter had a time trade off factor, used Integral Image for the bokeh creation whose performance was faster than Gaussian filter. Time came down to 1/30th of the previous step using Integral Image.
Project: Developed UI for an Android application
Worked on an Android application based in Unity which leverages Sony Audio Technology for creating a Real Time experience of a stadium
Designed and implemented the application UI & UX.
Project: Developed & Supported Sony Android TV Connectivity Module (Bluetooth)
Single handedly carried the project from India with the rest of the team situated in Tokyo, and delivered the work on time
Creation of Android test application for validating profiles A2DP,GATT,HID etc
Study and Analysis of Bluetooth core spec for Bluetooth modification of bluedroid stack
Project: POC on Data Visualization in 3D
Built an application using Unity and dual shock controller and ported it to Google cardboard for gamified visualization.
Created a simulated data for human expressions
Designed a model in Unity comprising of 5 booths each representing Sony advertisement.
Developed data visualization in 3D where each advertisement booth would give a result of human average response at the end, shown by smiley. The smiley responses were of three types(happy, boring, angry)

Education

UG: **B.Tech/B.E. (Electronics/Telecommunication)** from **National Institute of Technology (NIT), Other** in **2015**

PG: **in 0**

IT Skills

Skill Name	Version	Last Used	Experience
MACHINE LEARNING			
Python			
SQL analytics			
JAVA			
CUDA			

CuDNN
YOLO Framework
OCR
NLP
OPENCV
Deep learning
Zipline

Affirmative Action

Category: **General**

Physically Challenged: **No**

Work Authorization

Job Type: **Permanent**

Employment Status: **Full time**