Md. Shafiul Islam
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About me: I work as an individual contractor as I have my own company (SIA) in Riga, Latvia. I help to

- Analyze sales behavior across different hours of the day.

- Predict tomorrow's customer today by statistical analysis.

- Extract a product price in an automated way from various websites for analysis.

At present, I am looking for a B2B contract type job. My portfolio is https://portfolio.saleforecast.xyz/

Personal Data

Name   : Md. Shafiul Islam

Place of living   : Riga, LV-1012, Latvia

Company Name   : SaleForecast

Languages   : English, Dutch (A2)

Looking for   : B2B contract type job

Country of Origin : Bangladesh

Expertise on Programming

Programming Languages : C, R , RShiny.

R Packages   : Tidyverse, Rcpp, RStats, Forecast, LinProg, Lubridate, RSQLite, RMySQL,

LinProg, FPP, Rvest, RSelenium, FMA, Expsmooth, XTS.

Expertise on Algorithm

Forecast Algorithm   : Dynamic Regression, ARIMA, Exponential Smoothing, Artificial Neural Network.

Optimization Algorithm: Linear Programming, Nonlinear Programming, Dynamic Programming, FMM.

Numerical Algorithm   : Matrix Factorization, Finite Difference Method, Least Squares Method, Gauss-Jordan Method, Iterative Method, Mesh Generation and Statistical Analysis.

Basic Knowledge

Basic Knowledge   : Power BI, Python, MATLAB, HPC cluster.

Tools   : HTML, CSS, MS Excel, RStudio.
Operating System : Linux, Windows.

Education:

- **M.Sc in Computational Engineering, University of Rostock, Germany, January 2012.**
    - As a part of my master's study, I learned about the core development of Algorithms by translating mathematical formulas into Linear Algebra. The implementation was in C, C++ and Fortran programming language.

- **B.Sc in Computer Science and Engineering, Chittagong University of Engineering and Technology, Bangladesh, May 2008.**
    - As a part of my Bachelor Study, I learned about Algorithm Development, Linear Algebra, Database Management System and Programming Language(Fortran, C, C++ and MATLAB).

Hobby: Salsa Dancing, Practice Volleyball, Regular Running, Team Outing for Coffee

Work Experience

- ➢ 07/2019 – 03/2023 **Forecast Analyst**
  - YoungOnes B.V, Netherlands

    - I was a registered contractor of Dutch government (Chamber of Commerce Nr: 75392097) which provide me the access to work with several dutch company via YoungOnes Freelance platform. I provided valuable support to retail enterprises through comprehensive analysis and predictive modeling of daily sales. This predictive model uses a historical sales data along with the effect of various factors such as rain, temperature, and holidays to enhanced the precision of sales predictions. Subsequently, the foresight provided by these predictions enabled business owners to take a looking-forward strategies. These strategies encompassed waste reduction for organic food products through targeted discounts, meticulous stock replenishment budgeting, and strategic manpower allocation. The execution of this project involved the proficient use of the statistical programming language R, database SQLite and the development of the web application was facilitated by R Shiny.

- ➢ 09/2014 – 09/2018 **Scientific Researcher on Algorithm Development [PhD project (incomplete)]**
  -Dept. of Chemical Engineering, Technical University of Eindhoven, Netherland

    - I implemented a scientific algorithm to simulate mass transfer from a bubble rising inside a chemical reactor. Inside a chemical reactor, a gas bubble change it shape and motion continuously due to the change of surrounding liquid motion . The job of the algorithm is to measure the amount of inflow and outflow mass when a bubble change it shape. The implementation was in C , C++ and the computation was in HPC cluster.

- ➢ 01/2013 – 08/2014 **Scientific Researcher on Algorithm Development**
  -Université Paris-Est Créteil , France & University of Porto, Portugal

    - I implemented a scientific algorithm to model mathematically and to simulate the small and large-scale Turbulence at two Phase Flow (Liquid-Solid) system. The approach to implement the scientific algorithm called Large Eddy Simulation to simulate the Turbulence behavior in River and Estuarine. Fortran 90-MPI programming code for Parallel computing is used in this implementation.

- ➢ 01/2011 – 01/2012 **Scientific Researcher on Algorithm Development**
  - Lehrstuhl für Modellierung und Simulation, Rostock, Germany

    - This job was also a part of my master's thesis. I developed and implemented one of the top 10th algorithms of 20th century called 'Fast Multipole Method (FMM)' to simulate the interaction force and velocity field among a large number of particles. The particles were discreate and moving in a circular path inside of a Turbulence. The entire implementation was written by Fortran-90 programming language.

Demo Work

I wanted to share a brief highlight of our expertise in insight and predictive analysis, particularly in aiding the hotel industry. In our latest implementation by R/Shiny, we've designed a user-friendly system that allows hotel managers to predict customer flow for upcoming days. To demonstrate the versatility of our solution, a hotel manager can seamlessly substitute our historical dataset with their own. Simply click on the Data Set web link and explore the results via the Guest Insight & Forecast web link.

Data Set Link: https://www.docs.google.com/spreadsheets/d/1FL6JxJ1L-NBxt_1IfBk6KKQca_bB066I-UlzS2EPmP8/edit#gid=960400146

Guest Insight & Forecast Link: https://sale4cast.shinyapps.io/ForecastAndInsightAnalysis/

YoungOnes Review : https://www.dropbox.com/scl/fi/yth7nq5ouqtgf606gfx6l/FreelanceReview.png?rlkey=kb65vj3wdextu26xsqjs93r5u&dl=0

Recommendation Letter : https://www.dropbox.com/s/kjnfjaje1ehhv16/Recommendation%20Letter.pdf?dl=0

Academic Certificate : https://www.dropbox.com/scl/fi/7zf8jep3jz4w216xddw0a/Certificate.pdf?rlkey=y8oxrepdfmta9oxnpcnc7rqbj&dl=0

Research Publication : https://www.dropbox.com/scl/fi/rt55c02bbirkpffk6f63i/Publication.pdf?rlkey=gsi86n9dx14oquw0d2apwb8dm&dl=0