VIJAY WAGHMARE
Data Analyst

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SUMMARY

Ardent data analyst with Masters in Data Science coupled with two postgraduate degrees in Finance. Passionate to learn, adapt, innovate and use machine learning and deep learning models/algorithms to identify and solve real world problems. Independently implemented machine learning and deep learning models in time and frequency as Casual Research Assistant at Deakin University. Offering 12 years of transferable experience in using statistics for data driven business and operational decisions; designed and implemented automation and financial modeling using VBA across investment banking and finance domain.

WORK EXPERIENCE - DATA ANALYSIS

Deakin University   **Melbourne, Australia**
Casual Research Assistant   **Dec 2020 - Current**

- Developed machine learning models to predict physical fatigue level of workers in workplace (manufacturing/warehouse industry) using IMU sensor data from existing research paper (DOI - 10.1016/j.apergo.2017.02.001).
- Timeseries classification problem was solved using SVM regression for multi-class with 1.33 MAE and Logistic Regression for binary class problem with sensitivity and specificity of 92% on test dataset. Original paper had achieved 2.16 MAE for multi-class; sensitivity and specificity of 0.65 and 0.70 respectively.
- Data pre-processing included integration, singular value decomposition and robust scaler.
- Writing research paper on completed projects.
- Developed human activity recognition model for three activities in workplace using Linear Discriminant Analysis with ROC of 98% for two activities and 96% for third activity. GitHub: https://vwaghmare111.github.io/post/project-1/

Risk Management Associates   **Pune, India**
Business Analyst   **May 2018 - Jan 2019**

- Developed integrated and interactive "Borrower's Risk Rating Model" in MS Excel using VBA macros for service, manufacturing, and trading industry for a PAN ASIA Bank, Sri Lanka.
- Developed project financial feasibility with Sensitivity analysis and Monte Carlo simulation in MS Excel using VBA and imparted training to bankers in Nepal on behalf of INTL MANAGEMENT INSTITUTE OF NEPAL (IMI).
  GitHub: https://vwaghmare111.github.io/excel/

SELECTED PROJECTS

Stock price forecasting (Frequency - daily)

- Created web application using Machine learning API. End-to-end deployment of machine learning model using Flask, html and Heroku (Platform as a Service - PAAS).
- Multivariate regression model using Granger Causality statistical test to identify statistically significant lagged relationship between independent and dependent variables.
- Forecast period is dynamic and is equal to significant lags as per Granger Causality statistical test for each stock.
  Web App: https://stock-price-forecast-api.herokuapp.com/.
  GitHub: https://vwaghmare111.github.io/post/project-11/

PySpark SQL - Classification and Clustering

- Clustering and classification on FIFA-19 Kaggle dataset extracted from FIFA database.
- Kmeans, Logistic Regression, Naive Bayes, Multilayer Perceptron Classifier was used with cross-fold validation.
  GitHub: https://vwaghmare111.github.io/post/project-7/

LasVegas - Tableau Dashboard

- **Objective**: To create interactive dashboard for a client. Dataset: The 'LasVegas' dataset is a Multivariate dataset that provides details on 504 TripAdvisor reviews of the 21 hotels located in the Strip, Las Vegas.

- **Audience:** User of the dashboard is a manager at Wyndham Grand Desert (3-Star hotel) who is keen to perform SWOT analysis based on travellers' feedback (review score).
  GitHub: https://vwaghmare111.github.io/dashboards/dashboard-1/

MANAGERIAL WORK EXPERIENCE

State Street Syntel (JV Syntel and State Street, Australia)	**Pune, India**
Deputy Manager (Operations)	Apr 2014 – Sep 2016
Team Leader (Operations)	Jun 2011 – Mar 2014

SumaSoft Private Limited	**Pune, India**
Assistant Manager (Operations)	Apr 2014 – Sep 2016
Team Leader (Operations)	Apr 2004 - Oct 2008

EDUCATION

Deakin University, Melbourne, Australia   **Feb 2019 – Oct 2020**
Master of Data Science

- Recipient of Deakin India Merit Scholarship, 20% tuition, 2019 – current.
- Achieved high distinction average with WAM: 80%.

Gokhale Institute of Politics and Economics, Pune India   **Jun 2016 – Jun 2018**
Master of Science in Financial Economics

- Acquired CGPA of 8.00 on a 10 point grading scale.
- Researched on comparison between below topics using univariate stock indices time-series:
    - Efficient Market Hypothesis (EMH) and Fractal Market Hypothesis (FMH)
    - Econometrics and Machine Learning algorithms

Pune University, Pune India   **Jul 2010 – Jul 2012**
Post Graduate Diploma in Business Management (Finance Specialization, Part time)

- Scored 67% overall.
- Project of investment portfolio direction using Altman Z score.

TECHNICAL SKILLS

Python	ETL pipeline	R Statistical Software	Tableau
Power BI	Data cleansing	VBA for excel	Deep Learning
Machine Learning	Data wrangling	Financial modeling	Py Spark SQL
Flask	Object oriented programming	Econometric models	Statistical models

SOFT AND TRANSFERABLE SKILLS

Effective communication	Adaptability	Storytelling	Documentation
Intellectual curiosity	Critical thinking	Problem solving	Team player
Business acumen	Product understanding		

PACKAGES

Python - scikit-learn, sklearn, keras, tensorflow, statsmodel, scipy, nltk, etc.

R Software - ggplot, igraph, ggm, Rgraphviz, RBGL, gRbase, gRain, bnlearn, dplyr, detrendeR, forecast, tseries, fBasics etc.