Redowan **Delowar**

Data Scientist | Instructor

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Individual with 1.5 years of professional experience in Data Science, Machine Learning and exceptional interpersonal skill to communicate complex concepts across disparate business units. Seeking the job of a Data Engineer/Analyst to utilize expertise in data manipulation, visualization, predictive model development and deployment.

Professional Experience

Present - September 2018

Data Scientist, ShopUp, Dhaka

- Worked closely with software engineering and product management teams to frame problems, both from engineering and business perspective
- Built and deployed CNN driven automatic product categorization models
- Constructed data wrangling pipelines and time series models in finance paradigm
- Acquired specialization in database management, dash board construction and data visualization
- Worked with the development teams for accurate integration of machine learning models into platforms
- Increased the accuracy of loan forecasting algorithm from 55 to 75 percent.
- Deployed in-house rest APIs

Data Wrangling | Visualization | Image Processing | Time Series Analysis | Predictive Modeling | Rest APIs

Skills

Programming Languages	**Python**, **Shell Scripting**, **Go** (Novice), **JavaScript** (Novice)
Statistical Analysis	**Numpy**, **Scipy**, Statsmodels, **Scikit-learn**, **PyMC3**, Pyro, Auto sklearn, Cloud Auto ML
Data Visualization	Matplotlib, **Seaborn**, Pyviz, Altair, **Plotly**, **Dash**, Google Data Studio, Networkx, Gephi, Bokeh, Pygal, **Metabase**
Dataframe Manipulation	**Pandas**, **Modin**, Dask, Swifter
Time-series Analysis	**Prophet**, **Tsfresh**
Image Processing	**OpenCV**, **Pillow**, Scikit-image, SimpleCV, Mahotas, Pgmagick
Text Processing	**NLTK**, **SpaCy**, **Gensim**, Polyglot
Deeplearning Frameworks	**Tensorflow** (Keras Wrapper), Pytorch (Novice)
Web Frameworks	**Flask**, **Scrapy**, BeautifulSoup, Selenium
Database Technology	Microsoft SQL Server, **MySQL**, Google Cloud SQL, Google Big Query, **MongoDB**, Redis
Misc.	**Featuretools**, UMAP, **LIME**, PDPbox, Loguru, **Hyperopt**, Hyperas, Talos, Hyperopt-sklearn, Scikit-multilearn, Skorch
Development Tools	**Jupyter Notebook**, **VS Code**, Vim, **Git**, DVC, **Docker**, Dbeaver, Robo3t, Postman

Education

2018 - 2014 **BSc. in EEE**, Ahsanullah University of Science and Technology
CGPA : 3.49 out of 4.00

2013 - 2011 **Higher Secondary Certificate**, Notre Dame College
GPA : 5.00 out of 5.00

2009 - 2011 **Secondary School Certificate**, Engineering University Higher Secondary School
GPA : 5.00 out of 5.00

Projects

Digit Generation and Classification for Bangladeshi License Plate Detection — 2019

github.com/rednafi/prinumco

- Collected 107 unique Bangla fonts and programmatically generated 2500 images of Bengali digits
- Collected 1500 real images of license plates and cropped out individual digits
- Applied 40 types of data augmentation on both the real and programmatically generated image sets to generate 200k synthetic images
- Constructed a **MobileNetV2** based CNN architecture for digit recognition
- Validated the model on real digit dataset

Python3 | Keras | Plotly Express | Augmentor

Audio Tagging — 2019

github.com/rednafi/urban-sound-classification

- Audio feature extraction in the form of MFCC, Spectogram, Zero crossing points, Spectral rolloff etc
- Classification and inference via CNN based **Xception** model
- Deployment via **Flask** on **Heroku**

Python3 | Keras | Matplotlib | Plotly

Indoor Movement Prediction — 2019

github.com/rednafi/indoor-movement-prediction

- Predicting user movements from temporal streams of RSS measured between the nodes of a WSN
- Incorporation of gradient boosting based ensemble models for movement type recognition
- Demonstration via **Streamlit** on **Heroku**

Python3 | Scikit-learn | Plotly

Automating Github Project Initialization — 2019

github.com/rednafi/protomate

- CLI tool for creating new Github project
- Added Github password hashing, prompt to save password, prompt to add .gitignore, project language detection etc
- Ported via **Click** api

Python3 | Bash | Poetry | Questionary

Publications

2019 Facial Emotion Recognition from Single Modal Information, ICASERT 2019

Teaching and Mentoring

July 2018 – May 2018 | **Chief Instructor | Intro to Machine Learning, SBSC Club, BUET**

- Introduced machine learning fundamentals
- Taught statistical **EDA** techniques like **PCA**, **TSNE**, **SVD** etc
- Data munging using **Pandas**
- In depth demonstration of computer vision and text processing algorithms via **Keras** API

Python | Jupyter Notebook | Pandas | Anaconda | OpenCV | SpaCy | NLTK