

# Redowan DELOWAR

## Data Scientist | Instructor

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

## PROFESSIONAL EXPERIENCE

Present -  
September 2018

### Data Scientist, SHOPUP, Dhaka

- > Build pipelines with state of the art techniques to ingest, model and analyze massive flow of data from online and mobile user activity to create models to achieve business objectives
- > Work on projects that use cutting edge statistical modeling, time series prediction, machine learning techniques and optimization algorithms to analyze collected data
- > Work on optimization, scalability and performance of existing data infrastructure
- > Extract/transform/load (ETL) and ongoing maintenance of third party data in a Python environment
- > Coordinate effectively with team members in engineering, design, and product management
- > Develop data visualizations/dashboards that communicate findings
- > Develop, deploy and maintain ad-hoc microservices

ETL   Data Management   Data Processing   Time Series Analysis   Predictive Modeling   Microservices

## SKILLS

Programming Languages	Python, Shell Scripting, Go (Novice)
Database Technology	Microsoft SQL Server, MySQL, Google Cloud SQL, Google Big Query, MongoDB, Redis
Infrastructure	Docker, Mesos, Celery, Faktory, Heroku Dynos, Sentry, Data Dog, Asyncio, Gevent, Cortex
Statistical Analysis	Numpy, Scipy, Statsmodels, Scikit-learn, PyMC3, Pyro, Auto sklearn, Cloud Auto ML, Data Robot
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)
Data Visualization	Matplotlib, Seaborn, Pyviz, Altair, Plotly, Dash, Streamlit, Networkx, Gephi, Bokeh, Pygal, Metabase
Web Development	Flask, Scrappy, BeautifulSoup, Selenium
Development Tools	Jupyter Notebook, VS Code, Vim, Git, DVC, 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

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### RUNNING AND MANAGING BASH SNIPPETS ON UNIX SERVERS

2020

 [github.com/rednafi/rush](https://github.com/rednafi/rush)

- > CLI tool for managing and running **Bash** scripts
- > Save and run aliases for **Docker** commands
- > Replacing **Makefiles** with pure Bash scripting

Python3 Poetry Bash

### DIGIT GENERATION AND CLASSIFICATION FOR BANGLADESHI LICENSE PLATE DETECTION

2019

 [github.com/rednafi/prinumco](https://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](https://github.com/rednafi/urban-sound-classification)

- > Audio feature extraction in the form of MFCC, Spectrogram, 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](https://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](https://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

Python3 Poetry Questionary

## PUBLICATIONS

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2019 Facial Emotion Recognition from Single Modal Information, ICASERT 2019

## TEACHING AND MENTORING

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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
- > In depth demonstration of computer vision and text processing algorithms via **Keras** API

Python Jupyter Notebook Pandas Anaconda OpenCV