Niyaz Bin Hashem

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Experience

- **Machine Learning Engineer** — Mirpur 6, Dhaka
  Nybbles System Limited — *Oct 2019 - Present*
  - Design machine learning systems.
  - Research and implement appropriate ML algorithms and tools.
  - Tuning and optimizing different machine learning models.
  - Research on state of the art architecture and new models.
  - Data analysis and visualization.
  - Optimizing solutions for performance and scalability.

- **Project Team Lead** — Mohakhali, Dhaka
  Bracathon 3.0 Project - Brac Technology (Contract) — *Sep 2019 - Present*
  - Design the system pipeline.
  - Research and implement optimum solution.
  - Develop web-application for automation.
  - Deploy whole system in Google Cloud Engine.

Research & Publication

- **Violence Detection by Pretrained Modules with different Deep Learning approaches** — World Scientific
  Vietnam Journal of Computer Science — https://bit.ly/2L54NhV — *October 2019*
- **Human Activity Recognition using Deep Learning**
  Implemented Long Short Term Memory to predict Human Activity from sensor data.
- **Bangla Sign Language Interpreter using Convolutional Neural Network**
  Classification of Bangla Alphabets and 10 Bangla words using hand gesture photo.

Education

- **North South University** — Dhaka, Bangladesh
  Bachelor of Computer Science and Engineering — *Jan 2015 - May 2019*
- **Bangladesh Navy College** — Chittagong, Bangladesh
  Higher Secondary School Certificate — *2012 - 2013*
- **Chittagong Govt. High School** — Chittagong, Bangladesh
  Secondary School Certificate — *2010 - 2011*

Skills Summary

- **Languages**: Python*, C++, C
- **Machine Learning & Deep Learning**: TensorFLow, Keras, Scikit-Learn, OpenCV
- **Data Processing**: NumPy, Pandas
- **Data Visualization**: Matplotlib, Plotly
- **Web Development**: HTML, CSS, Javascript, Django, Flask, REST API
- **Version Control Tools**: Github, Gitlab, BitBucket
- **Technologies**: Google Colab, Anaconda, Google Cloud Engine, Selenium, Beautiful Soup
- **Operating Systems**: Ubuntu, Linux mint, Zorin OS, Raspbian OS, Manjaro, Arch Linux, Antergos, Kali Linux and Windows (98 - 10)

Honors and Awards

- Winner — Udacity Intel Edge AI Scholarship Foundation Course, 2019
- Winner — 'Bracathon 3.0' organized by Brac IT, 2019
- Top 80 Participants for the 'Datathon' organized by Robi and supported by Axiata Analytics, 2019
- Top 5 among batch of 25 teams at NSU Mobile App Development Hackathon, 2018

Certifications

- AWS Machine Learning Foundations Course - Udacity Nanodegree program — Going on
- TensorFlow: Data Deployment Specialization https://bit.ly/3hP1zgL
- TensorFlow in Practice Specialization — https://bit.ly/2R11rPX
- Neural Networks and Deep Learning — https://bit.ly/2nti8I0
- Improving Deep Neural Networks Hyperparameter tuning, Regularization & Optimization — https://bit.ly/2QjOTSv
- Python for Data Science — https://bit.ly/2VZmabB
- Data Analysis with Python — https://bit.ly/2VJs9wb
- Google Cloud Platform Big Data and Machine Learning — https://bit.ly/2X76vqi

Projects

- **Face Recognition System**
  python, opencv, tensorflow, numpy, flask
  - Developed a realtime face recognition system using ArcFace & FaceNet.
  - Links — https://bit.ly/2lbvhEZ & https://bit.ly/2lp7Hoe

- **Document Eye Tracker**
  html, css, javascript, laravel, webgazer.js
  - Implemented WebGazer.js library to track the eye.
  - Built a web application which tracks the eye while reading documents on our application and generates a report based on behaviour of reader's eye.

- **Bangla Number Recognition**
  python, tensorflow, opencv, android
  - Built a classifier using CNN to classify Bangla Number (1-10) using hand gesture.
  - Deployed the classifier in Android application with a Bangla Sign Dictionary.

- **Neighbourhood**
  node.js, express.js, nedb, leaflet.js, openstreetmap, geo-location api
  - Real-time map based platform to help others in this pandemic.
  - Link - https://github.com/niyazed/neighbourhood

- **Thermalpod**
  python, opencv, numpy
  - Basic image-processing to detect temperature using pixel density calculation.
  - Link - https://github.com/niyazed/thermalpod

- **Cow Price Dataset**
  python, pandas, matplotlib
  - Made a image dataset of cows according to their id, price, age, color, breed, weight.
  - Link — https://bit.ly/2OWTn4m

- **Forex Price Prediction**
  python, pandas, scikit-learn, tensorflow, matplotlib
  - Implemented LSTM to predict hourly open price of two pair EURUSD & GBPUSD

- **Virtual Personal Assistant**
  python, networking, jasper, speech-recognition, RPi
  - Built a Voice assistant system based on a Open source library called 'Jasper'.
  - Deployed the system in Raspbian Operating System & Raspberry Pi serves the user as a virtual assistant.

More projects and information available at **https://github.com/niyazed