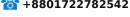
# KHANDAKAR AMIR HOSSAIN









# **WORK EXPERIENCE (2 years 9 months)**

# IoT Software Engineer:

## Nybbles Systems Limited (NybSys Pvt. Ltd.)

- 1<sup>st</sup> Aug 2020 Present (2 years 4 months)
- Working with IoT team in developing clean code for embadded linux
- R&D on performance improvement for different IoT Gateway products
- · Learning sensor data hervesting and protocol mechanisms

#### IoT Intern:

## Nybbles Systems Limited (NybSys Pvt. Ltd.)

- 1<sup>st</sup> March 2020 31<sup>st</sup> July 2020 (5 months)
- Worked with the IoT team in implementing & testing new features
- Upgraded existing firmware with some really cool features
- Developed automation tools and GUI to enhance productivity for some bowring repetitive tasks.

# **LEARNING & CERTIFICATIONS**

- Python for Data Science and AI: View An online course organized by **IBM** and offered through **coursera**.
- Mathematics for Machine Learning: View An online specialization (3 courses) organized by Imperial College **London** and offered through **coursera**.
  - 1. Linear Algebra. View
  - 2. Multivariate Calculus. View
- 3. Principle Component Analysis(PCA). View
- IBM AI Engineering: View

An online non-creadit professional training (6 courses) organized by IBM and offered through coursera.

- 1. Machine Learning with Python. View
- 2. Scalable Machine Learning on Big Data using Apache Spark. View
- 3. Introduction to Deep Learning & Neural Network with Keras. View
- 4. Deep Neural Networks with PyTorch. View
- 5. Building Deep Learning Models with TensorFlow. View
- 6. Al Capstone Project with Deep Learning. View

#### HANDSON TECHNOLOGIES

Development Boards: Jetson Tx2/Nano, Raspberry Pi 2/3/4, STM32MP157C, OpenMV, Esp-32/8266, Arduino Uno, Arduino Mega 2560, STM32F103C8T6, SIM800L, SIM5300E

Software Tools & IDE: Eagle, Proteous, EasyEda, Circuit Maker, Keil, STM32CubelDE, VS Code, Spyder, Arduino IDE, FrameWorks: FreeRTOS

# REMARKABLE PROJECTS

- Thesis Paper "Relative comparison between different machine learning algorithms for criminal offense detection and immediate response on the event using intelligent IoT devices "
- -- Under development and continuous review.
- NybSys LMR Gateway ( NS\_LMRG100 ) View IWCE Expo 2021 Designed, Developed, Tested & Deployed NS LMRG100. View Demo 2
- NybSys Smart Poultry Farm Automation. View Developed, tested & Deployed NSPF100 gateway & sensor nodes
- NybSys Water ATM (B2B for Drink Well) View Upgraded the existing firmware to Version 3.1 & added new features
- NybSys IoT Gateway (IG100) View Upgraded the existing firmware to Version 2.1 & added new features
- NybSys Sentra Dispatch to Multicast Gateway (BackEnd Tool) Developed & Tested the tool that will run in the backend for scalability.
- Weapon (Gun) Detection and Elimination For jewelry Shops and Bank Security :(Using ML & IoT) View

# **EDUCATION**

M.Sc(Engg) in ICT [ Thesis On Going ] [Tentative Completion-February 2023] Islamic University, Bangladesh.

■ 2020 - 2022 Expected CGPA: 3.25/4.00

B.Sc(Hons) in ICT

Islamic University, Bangladesh.

CGPA: 3.31/4.00 **2016 - 2020** Higher Secondary School Certificate

**Dinajpur Government College** 

**2013 - 2015** GPA: 4.83/5.00

Secondary School Certificate Maharaja Girijanath High School

**2011 - 2013** GPA: 5.00/5.00

# PROGRAMMING SKILLS

Languages: Python3, NodeJS, React, C, C++ **Embedded C**, Java, Bash-Linux Shell Scripting. Machine Learning: Numpy, Pandas, PyTorch

Tensorflow, Scikit-Learn, SciPy, matplotlib OpenCV, Apache Spark, Keras.

Network Programming: TCP/UDP, MQTT, RTP Web FrameWork: Django

Scalbility&Deployment: **Docker**, **Gunicorn** Database: MySQL, PostgreSQL, SQLite3 ML Algorithms: Statistical Modeling, **SVM**,

Neural Networks, Classification, Clustering Generative Adversarial Networks(GAN).

# SOFTWARE SKILLS

- · Class, ER & Sequence Diagram generation.
- S O L I D design patterns in practice.
- Object Oriented Programming.
- · Clean & Standard Coding Practices.
- · Multi Processing/ Threading.
- · Event Handling.
- · Inter Process Communication.
- · Repetitive Task Automation.
- · Dead Lock Prevention Precautions.
- Distributed Version Control with Git.

# PASSIONATE ABOUT

I want to play with cutting edge technologies and deploy my knowledge in building reliable solutions that will add value to the global economy by enhancing comfortability in our daily life.

## REFERENCES

#### **Moshtaq Ahmed**

- CEO at NybSys
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## Dr. Paresh Chandra Barman.

- Professor, Dept of ICT, IU
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- +8801648583273