

# KHANDAKAR AMIR HOSSAIN

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## WORK EXPERIENCE ( 2 years 2 months )

IoT Software Engineer:

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

📅 1<sup>st</sup> Aug 2020 - Present (1 year 9 months)

- Working with IoT team in developing clean code for embedded linux
- R&D on performance improvement for different IoT Gateway products
- Learning sensor data harvesting 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 boring 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-credit 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. AI Capstone Project with Deep Learning. [View](#)

## HANDSON TECHNOLOGIES

**Development Boards:** Jetson Tx2/Nano, Raspberry Pi 2/3/4 , STM32MP157C, OpenMV, Esp32, Esp-8266, Arduino Uno Arduino Mega 2560, STM32F103C8T6

**Software Tools & IDE:** Eagle, Proteous, EasyEda, Circuit Maker, Keil, STM32CubeIDE, VS Code, Spyder, Arduino IDE,

**FrameWorks:** FreeRTOS

## REMARKABLE PROJECTS

• **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](#)

• **Bank Loan approval decision prediction (data model):** [View](#)

[N.B: Dataset was taken from kaggle and assigned to us by my Supervisor **Dr. Bikash Chandra Singh.**]

## EDUCATION

B.Sc(Hons) in ICT

**Islamic University, Bangladesh.**

📅 2016 - 2020

**CGPA: 3.31/4.00**

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, Node JS, 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:** socket, MQTT, RTP

**Web Framework:** Django

**Scalability&Deployment:** Docker, Unicorn

**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 build my carrier as an AI Engineer.

Currently I'm learning several

Machine Learning algorithms from online and

applying them to several data-sets. It will be

Interesting for me to work with people and/or

company that concentrates on Artificial

Intelligence or Big Data, Data Science.

More specifically Data Mining, Deep Learning,

Machine Learning and/or Computer Vision

## REFERENCES

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