### ZABIR AL NAZI

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### **EDUCATION**

# **B.Sc.** in Electronics and Communication Engineering

Khulna University of Engineering and Technology

Coursework: Data Structure and Algorithm, Database Management, Internet Programming, C Programming, Object Oriented Programming with C++, Digital Image

Processing, Digital Signal Processing, Artificial Neural Network and Fuzzy Logic, Numerical Methods, Linear Algebra, Probability and Statistics, Multivariable Calculus, Computer Networks

## **Higher Secondary Certificate in Science**

**RAJUK Uttara Model College** 

GPA: 5.00 / 5.00

2012 - 2014

CGPA: 3.43 / 4.00

### **WORK EXPERIENCE**

#### Ice9 Interactive – Research Intern

November 2017 - February 2018

Expected Graduation in March 2019

- · worked on imagery data mining with different API services
- · other activities: using computer vision techniques to extract features from street view images, training ML models to classify and localize objects, designing dynamic maps etc.

#### MazeGeek BD - Intern, Research Assistant I

May 2018 - Present

- · worked on VINNDO platform, did some web scrapping
- · working on deploying a ML model which can extract car features from images, localize car parts and automatic VIN detection system

### **SKILLS**

Fields Algorithms and DS, Computer Vision, Image Processing, Machine Learning, Embedded Systems, Robotics, Biomedical

Languages C++, C, Matlab, GNU Octave, Python, C#, Javascript, PHP, Java

Operating System Windows, Ubuntu

Frameworks / Tools Keras, Flask, scikit-learn, OpenCV, Pandas, Bokeh, Jupyter Notebook, Spyder, CodeBlocks, Unity

# **PUBLICATIONS**

- Information Prediction in Sensor Networks Using Milne-Simpson's Scheme, International Conference on Advances in Electrical Engineering (ICAEE)
- Data Prediction in Distributed Sensor Networks using Adam-Bashforth Moulton Method, Journal of Sensor Technology
- Bangla Handwritten Digit Recognition Approach with an Ensemble of Deep Residual Networks, International Conference on Bangla Speech and Language Processing [Accepted]
- Motor Imagery EEG Signal Classification Using Random Subspace Ensemble Method, 7th International Conference on Informatics,
  Electronics & Vision [Accepted]

• Motor Imagery EEG Classification using Random Subspace Ensemble Network with Variable Length Feature Sampling, International Journal Bioautomation [Submitted]

### **PROJECTS**

### **Autonomous Driving System with Matlab**

- I developed a toolbox to calibrate the car and get the images for training mode easily, used a simple distributed computing system with two laptops to speed up processing, ad-hoc image processing technique for lane detection and cascade classifiers for road sign detection
- · https://github.com/zabir-nabil/autonomous-driving-system

### **ACHIEVEMENTS**

ACM International Collegiate Programming Contest, Dhaka Regional (2015, 2016, 2017)

· https://icpc.baylor.edu/ICPCID/BIKBO2UHPKON

Ignition 2018: National Mechanical Festival

· Champion, Matlab Programming Contest

### **COMPETITIONS**

Kaggle - Numta, Bengali Handwritten Digit Recognition Challenge

· Top 15% · https://www.kaggle.com/furcifer

# **VOLUNTEER EXPERIENCE**

- $\cdot \ Algorithmic \ Problem \ Setter, \textbf{CodeAssign} \ (start-up \ focused \ on \ OJ, \ based \ on \ Croatia)$
- · Secretary, IEEE KUET Student Branch
- · Assistant General Secretary, SGIPC (club of competitive programming community at KUET)
- · Software Team Lead, KUET Rover Makers (International Rover Challenge)
- · Intro Python Instructor, Fab Lab KUET
- · Technical organizer, TechNival (biggest tech carnival launched by MEC, KUET)
- $\cdot \ Founder \ \& \ Fellow \ Member, \ \textbf{IRAS} \ (Innovation \ and \ Research \ Association \ for \ Students, \ KUET)$

# **Others**

- · Regional BACS Programming Camp 2017, Khulna Region (got invitation, participated)
- $\cdot \textbf{National BACS Programming Camp 2017} \ (\texttt{got invitation}, \texttt{participated})$