

# Md Abdullah Al Mamun

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## Graduate Research Assistant

I'm a computer science **PhD candidate** at FIU with an overall work experience of 5 years predominantly working in an Agile environment and demonstrated expertise in Problem-solving, Software development, and System design. I'm working at the Machine Learning and Data Analytics (MLDAG) research lab. I'm a **Champion** on GCC Robotics Challenge at Qatar 2017 organized by IEEE/IET.

## PROFESSIONAL EXPERIENCES

**Graduate Assistant** at Florida International University, Miami, USA. *2 years+ (Aug 2018 – Present)*

- Developing an intelligent feature selection framework for high dimensional data towards better classification/clustering tasks. Language/Tools: Python, TensorFlow, Keras, GPU
- Developed a deep learning based model for sleep stages classifier. Language: Java
- Developed deep learning models for cancer classification. Language: Python
- Taught OOP (C++, Python), HCI to UG students

**Freelance Software Developer** at RI, King Fahd University of Petroleum and Minerals, KSA. *2 years (2015 -2017)*

- Developed a deep learning model using LSTM to analyze tweets. Language: Python

**Software Developer Engineer - I** at Personal Web Assistant Corporation, USA (Dhaka Office). *3 years (2013 – 2015)*

- Developed and maintained web apps like <http://pwame.com>. Tools/Language: PHP, SQL, HTML5, JS

## HIGHER EDUCATIONS

**PhD in Computer Science** at Florida International University. *Aug 2018 - Dec 2021*

- Implemented an OS file system. Language: C++
- Developed semi-supervised real-time tweet spam filter. Language/Tools: Java, Hadoop, Spark-Streaming
- Graduate Courses: (1) Advanced Data Mining (2) Analysis of Algorithm (3) Advanced Information Processing (4) Operating System (5) Theory of Computation

**MS in Computer Engineering** at King Fahd University of Petroleum & Minerals, KSA. *2015 - 2017*

- Implemented an embedded system for motion control of an omnidirectional mobile robot. Language/Tools: C/C++, MATLAB, Arduino
- Developed an intelligent framework to add new features into an existing product line using several optimization algorithms. Language: Java

**BS in Computer Science** at Dhaka University of Engineering and Technology, Dhaka, Bangladesh. *2008 - 2011*

## RESEARCH WORKS

**2020** **Al Mamun, Abdullah**, Kalai Mathee, Giri Narasimhan, and Ananda Mohan Mondal. "Molecular Subtype Classification Using Recursive l1-norm Multiclass SVM Reveals Key lncRNAs for Breast Cancer" in BMC Bioinformatics 2020. *Under review.*

**Al Mamun, Abdullah**, Ananda Mondal. " Feature Selection and Classification Reveal key lncRNAs for Multiple Cancers." In *2019 IEEE International Conference on Bioinformatics and Biomedicine (BIBM)*. IEEE, 2019.

**2019** **Al Mamun, Abdullah**, and Ananda Mohan Mondal. "Long Non-coding RNA Based Cancer Classification using Deep Neural Networks." In *Proceedings of the 10th ACM International Conference on Bioinformatics, Computational Biology and Health Informatics*, ACM, 2019.

M. H. Al-Meer and **Al Mamun, Abdullah** "Deep Learning in Classifying Sleep Stages," *2018 Thirteenth International Conference on Digital Information Management (ICDIM)*, Berlin, Germany, 2018, pp. 12-17.

**2018** AlSaad, R., Al-Máadeed, S., **Al Mamun, Abdullah**, & Boughorbel, S. (2018, July). A Deep Learning Based Automatic Severity Detector for Diabetic Retinopathy. In *International Conference on Machine Learning and Data Mining in Pattern Recognition*(pp. 64-76). Springer, Cham.

**Al Mamun, Abdullah**, Mohammad Tariq Nasir, and Ahmad Khayyat. "Embedded System for Motion Control of an Omnidirectional Mobile Robot." *IEEE Access*, vol. 6, pp. 6722-6739, Jan 2018. (**Q1, IF 4.09**)

## PERSONAL SKILLS

- **Languages:** English: Proficient (Reading: Fluent, Writing: Advance, Speaking: Fluent)
- **Programming languages/Tools:** Machine Learning, Data Analytics, Data Science, Software Engineering, Web Development, Bioinformatics, Algorithms, Data Structures, Python, C/C++, R, Keras, TensorFlow, Scikit-learn, SQL, GitHub, LaTeX, MATLAB, PHP, HTML5
- **Summer Trainer** of Python course for 20 high school teachers at FIU under NSF RET program, 2019 and 2020
- **Team Lead** of embedded system team for International Robotic Soccer Competition (RoboCup-SSL club) at KFUPM, 2016

## CERTIFICATIONS

- End-to-End Machine Learning with TensorFlow on GCP (Google Cloud Platform) offered by **Google**, 2020
- Distributed System and Cloud Computing Concept (Part-1 and Part-2) offered by University of Illinois at Urbana-Champaign, 2015

## AWARDS RECEIVED

- **Champion**, 2nd GCC Robotics Challenge at Qatar, 2017. Organized by IEEE and IET
- **Internal Research Award** for outstanding research contribution from Qatar University, 2018
- **NSTIP Award** from Ministry of Science Research and Technology, KSA at KFUPM, 2014 - 2015
- **Deanship Award** (Full-fund for MS) at KFUPM, 2014 - 2017
- **Academic Excellence Award** for BS at DUET, Bangladesh, 2008 – 2012
- **Graduate Teaching Assistantship**, Florida International University, USA, 2018 - Present
- **Conference Travel Fellowships**
  - 10th ACM International Conference on Bioinformatics, Computational Biology and Health Informatics, NY, USA, 2019
  - IEEE International Conference on Bioinformatics and Biomedicine, San Diego, USA, 2019
  - IEEE International Conference of Electrical and Electronic Technologies for Automotive, Milan, Italy, 2018
  - 13<sup>th</sup> International Conference on Digital Information Management (ICDIM), Berlin, Germany, 2018