

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 Research Assistant at Florida International University, Miami, USA. **2020 – Present**

- Developing an intelligent feature selection framework for high dimensional data towards better classification/clustering tasks. Language/Tools: Python, TensorFlow, Keras, GPU

Graduate Teaching Assistant at Florida International University, Miami, USA. **2018 – 2020**

- 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 Engineer at RI, King Fahd University of Petroleum and Minerals, KSA. **2015 -2017**

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

Software Engineer at Personal Web Assistant Corporation, USA (Dhaka Office). **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

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. **2007 – 2012**

RESEARCH WORKS

Journal Publications

1. **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)**
2. Tanvir, Raihanul Bari, Tasmia Aqila, Mona Maharjan, **Abdullah Al Mamun**, and Ananda Mohan Mondal. "Graph Theoretic and Pearson Correlation-Based Discovery of Network Biomarkers for Cancer." Data 4, no. 2 (2019): 81.

Conference Proceedings

1. **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.

2. Aqila, Tasmia, **Abdullah Al Mamun**, and Ananda Mohan Mondal. "Pseudotime Based Discovery of Breast Cancer Heterogeneity." In 2019 IEEE International Conference on Bioinformatics and Biomedicine (BIBM), pp. 2049-2054. IEEE, 2019.
3. 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.
4. AlSaad, Rawan, Somaya Al-Máadeed, **Abdullah Al Mamun**, and Sabri Boughorbel. "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, 2018.
5. **Al Mamun, Abdullah**, Abdullah Al Mamun, and Abdullatif Shikfa. "Challenges and Mitigation of Cyber Threat in Automated Vehicle: An Integrated Approach." In 2018 International Conference of Electrical and Electronic Technologies for Automotive, pp. 1-6. IEEE, 2018.
6. **Al Mamun, Abdullah**, Fahim Djatmiko, and Mridul Kanti Das. "Binary multi-objective PSO and GA for adding new features into an existing product line." In 2016 19th International Conference on Computer and Information Technology (ICCIT), pp. 581-585. IEEE, 2016.

Poster Presentation

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*, pp. 541-541. 2019.

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
 - 13th International Conference on Digital Information Management (ICDIM), Berlin, Germany, 2018