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 3 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 group. I'm a Champion on GCC Robotics Challenge at Qatar 2017 organized by IEEE/IET.

Skills: Algorithms, Data Structures, Machine Learning, Data Mining, Data Analysis, Data Science, Software Engineering, Backend Web Development, Bioinformatics, Python, C/C++, R, Keras, TensorFlow, Scikit-learn, SQL, GitHub, LaTeX, MATLAB, PHP, HTML5

WORK EXPERIENCES

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

Highlighted Projects [GitHub links]

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

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

- Taught OOP (C++, Python), HCI to UG students
- Developed a deep learning based model for sleep stages classifier. Language: Java
- Developed deep learning models for cancer classification. Language: Python

2017 - 2018 **Teaching Assistant** at Qatar University, Doha, Qatar.

- Taught OOP (C++, Python) to UG students

2015 - 2017 **Freelance Software Developer** at Research Institute, King Fahd University of Petroleum and Minerals, KSA.

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

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

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

HIGHER EDUCATIONS

2018 - Dec 21 **PhD Candidate in Computer Science** at Florida International University. (Expected Grad.: Dec 21)

Highlighted Course Projects [GitHub links]

- 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

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

Highlighted Projects

- 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/Tools: Java

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

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

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**)

LEADERSHIP SKILLS

- 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