S M Rafiuddin

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OBJECTIVE

To obtain a career in Research and Development in the Computer Science arena.

EDUCATION

Ph.D. in Computer Science   August 2022 - Present
Department of Computer Science
Oklahoma State University

- Machine Learning
- Data Structures and Algorithms II
- Design and Implementation of Operating Systems II
- Cloud Computing and Distributed Systems
- Big Data Analytics
- Introduction to Computer Security

B.Sc. in Computer Science and Engineering   January 2012 - October 2016
Department of Computer Science and Engineering
Rajshahi University of Engineering and Technology
CGPA: 3.53 out of 4.00

RESEARCH INTEREST

- Machine Learning
- Deep Learning
- Natural Language Processing
- Pattern Recognition

EXPERIENCE

Graduate Teaching Assistant   August 2022 - Present
Department of Computer Science
Oklahoma State University

- ***Introduction to Computer Security (Fall 2022):*** Facilitated learning for 50+ students through interactive discussions, enhancing their understanding of key security principles and practices.
- ***Design and Implementation of Operating Systems I (Spring 2023, Spring 2024):*** Led weekly sessions and provided one-on-one mentoring to students, significantly improving their practical skills in OS development.
- ***Data Structures and Algorithm Analysis II (Fall 2023):*** Designed and graded complex assignments and exams to assess and reinforce students' problem-solving skills in advanced algorithms.

Lecturer   October 2018 - July 2022
Department of Computer Science and Engineering (CSE)
University of Asia Pacific - UAP
74/A Green Road, Farmgate, Dhaka 1215.

(Host of the 45th International Collegiate Programming Contest World Finals, 2022)

- Led theory and lab classes in the undergraduate Computer Science program, including question preparation, script evaluation, and result compilation.
- Supervised undergraduate projects and coached the Competitive Programming team at RUET IUPC 2019, enhancing practical and competitive skills.
- Actively participated in IQAC workshops and implemented Outcome Based Education (OBE) strategies, contributing to curriculum development and quality assurance.

Lecturer   February 2017 - October 2018
Department of Computer Science and Engineering (CSE)
Uttara University

- Conducted theory and sessional classes for undergraduate Computer Science, encompassing question preparation, script evaluation, and result compilation.

STANDARDIZED TEST SCORES

- GRE General Test (Verbal Section - 152, Quant Section - 160, AWA - 3.5)
- TOEFL iBT Test (Reading - 23, Listening - 26, Speaking - 21, Writing - 26)
- International Teaching Assistant (ITA) Exam (280/300)

TECHNOLOGY SKILLS

Programming Languages: C, C++, Java, Python.
Operating System: Linux.
Version Control and Development: Git.
Web Technologies: HTML, CSS, JavaScript, PHP, Django.
Cloud Technologies: Amazon AWS, Docker.
Database Technologies: Oracle, MySQL, PL/SQL.
Technical Writing: LaTeX.
Editing and Design: Adobe Photoshop, Adobe Illustrator.
Library/Framework: NumPy, pandas, MatPlotLib, NLTK, ScikitLearn, Tensorflow, PyTorch, Seaborn.
Simulator: Matlab, Octave, Multisim, CISCO Packet Tracer, Unity, Blender.

PUBLICATIONS (Most Recent First)

- **Rafiuddin, S. M.** , Rakib, M., Kamal, S., & Bagavathi, A. (2024, February). Exploiting Adaptive Contextual Masking for Aspect-Based Sentiment Analysis. *Accepted at PAKDD 2024*
- **Rafiuddin, S. M. Rafiuddin, S. M.** (2022, March). High Cursive Complex Character Recognition using GAN External Classifier. *In Proceedings of the 2nd International Conference on Computing Advancements* (pp. 466-472).
- Karim, M. A., **Rafiuddin, S. M.**, Islam Razin, M. J., & Alam, T. (2022, March). Isolated Bangla Handwritten Character Classification using Transfer Learning. *In Proceedings of the 2nd International Conference on Computing Advancements* (pp. 11-17).
- Razin, J. I., Abdul Karim, M., Mridha, M. F., **Rafiuddin Rifat, S. M.**, & Alam, T. (2021). A Long Short-Term Memory (LSTM) Model for Business Sentiment Analysis Based on Recurrent Neural Network. *In Sustainable Communication Networks and Application* (pp. 1-15). Springer, Singapore.
- **Rafiuddin, S. M.** (2019, December). Estimation of Phylogenetic Tree using Gene Sequencing Data. *In 2019 4th International Conference on Electrical Information and Communication Technology (EICT)* (pp. 1-5). IEEE.

- **Rafiuddin, S. M.** (2017, December). Ranking of Bangla word graph using graph based ranking algorithms. *In 2017 3rd International Conference on Electrical Information and Communication Technology (EICT)* (pp. 1-5). IEEE.

- Mishu, S. Z., & **Rafiuddin, S. M.** (2016, December). Performance analysis of supervised machine learning algorithms for text classification. *In 2016 19th International Conference on Computer and Information Technology (ICCIT)* (pp. 409-413). IEEE.

COURSES TAUGHT AS LECTURER

Theory Courses:

- Machine Learning (Spring 2020 UAP, Fall 2020 UAP)
- Pattern Recognition (Fall 2018 UAP, Spring 2019 UAP, Fall 2019 UAP)
- Design and Analysis of Algorithms (Fall 2018 UU, Fall 2020 UAP)
- Operating System Design (Summer 2018 UU)
- Discrete Mathematics (Fall 2017 UU)
- Programming Language and Application II (C++) (Fall 2017 UU)
- Mathematics for Computer Science (Spring 2021 UAP)
- Visual and Web Programming (Fall 2021 UAP)

Lab Courses:

- Computer Graphics Lab (Fall 2018 UAP, Spring 2019 UAP, Fall 2019 UAP, Spring 2020 UAP, Fall 2020 UAP, Spring 2021 UAP, Fall 2021 UAP)
- Pattern Recognition Lab (Fall 2018 UAP, Spring 2019 UAP, Fall 2019 UAP, Spring 2021 UAP)
- Compiler Design Lab (Fall 2020 UAP)
- Algorithms Lab (Fall 2019 UAP)
- Object Oriented Programming - II (Java) Lab (Spring 2021 UAP)
- Visual and Web Programming Lab (Fall 2021 UAP)

MOOC COURSE CERTIFICATES

ACADEMIC COURSES

- **Machine Learning**
  Stanford Univerity, USA, course provided by Coursera
- **Algorithms: Design and Analysis, Part 1**
  Stanford Univerity, USA, course provided by Coursera
- **Understanding Research Methods**
  University of London, course provided by Coursera
- **Introduction to Mathematical Thinking**
  Stanford University, course provided by Coursera
- **Deep Learning Specialization**
  by *deeplearning.ai*

1. **Neural Networks and Deep Learning**
2. **Improving Deep Neural Networks: Hyperparameter tuning, Regularization, and Optimization**
3. **Structuring Machine Learning Projects**
4. **Convolutional Neural Networks**
5. **Sequence Models**

NON-ACADEMIC COURSES

- **Photography Basics and Beyond: From Smartphone to DSLR Specialization** by *Michigan State University, provided by Coursera*

  1. **Cameras, Exposure, and Photography**
  2. **Camera Control**
  3. **Principles of Photo Composition and Digital Image Post-Production**
  4. **Photography Techniques: Light, Content, and Sharing**
  5. **Photography Capstone Project**

ONLINE PROFILES	[**LinkedIn**] [**Github**] [**Twitter**]
RESEARCH PROFILES	[**Google Scholar**] [**dblp**] [**Semantic Scholar**] [**ORCiD**] [**Scopus**]

VOLUNTARY SERVICES

National High School Programming Contest (NHSPC), Rajshahi.
Volunteer   2016

Divisional Mathematical Olympiad, Faridpur.
Math Olympiad Volunteer (MOVer)   2006

TRAINING EXPERIENCE

The role and responsibility and ethical principle of the university teachers.
Conducted by the Institutional Quality Assurance Cell (IQAC), Uttara University, Bangladesh   February 24, 2018

Improving Learning and Teaching Skills (ILTS)
Conducted by University of Asia Pacific   May 5, 2019

AWARDS

Honorable Mention in ICT Fest, IUT, Gazipur
Islamic University of Technology, Gazipur   2014

Honorable Mention in National Collegiate Programming Contest (NCPC), DIU
Daffodil International University (DIU)   2014

Champion in ICT Olympiad, CSE Fest, RUET
Career Club, Rajshahi University of Engineering and Technology (RUET)   2012

REFERENCES

Dr. Muhammad Abdullah Adnan
Email: *adnan@cse.buet.ac.bd*
Associate Professor
Department of Computer Science and Engineering (CSE)
Bangladesh University of Engineering and Technology (BUET)

Dr. Arunkumar Bagavathi
Email: *abagava@okstate.edu*
Assistant Professor
Department of Computer Science
Oklahoma State University