Jannatul Ferdous

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Education

MS/PhD in Computer Science (Expected graduation - 2022/2023) Jan. 2018 – Present
University of New Mexico, New Mexico, USA | ***CGPA: 3.99/4.00***

BSc in Computer Science & Engineering Jan. 2012 – May. 2016
University of Dhaka, Dhaka, BD | ***CGPA: 3.64/4.00***

Experience

Research Assistant | *Moses Biological Computation Lab, CS, UNM* Aug. 2020 – Present
Advisor: Dr. Melanie Moses

- **Research Interest:** Computational Immunology, Biologically Inspired Computation, Scaling in Complex Systems
- Develop computational and mathematical models of immune systems and apply the knowledge in biologically-inspired computation.
- Analyze complex biological problems and implement new statistical tools for deriving insights from the biological and computational data
- Study and explore the scaling of the immune system of mammals through computer modeling, simulations and statistical tools.

Instructor | *Department of Computer Science, UNM* Jan. 2019 – Aug. 2020

- Courses: Object Oriented Programming, CS for All

Graduate Teaching Assistant | *Department of Computer Science, UNM* Jan. 2018 – Dec. 2018

- Courses: Cyber Security, Data organization with C

Lecturer | *Department of CSE, Eastern University, Dhaka, Bangladesh* May 2016 – Dec. 2017

- Courses: Distributed Systems, Object Oriented Programming, Computer Peripheral and Interfaces, Introduction to C and C++

Journal

J. Ferdous, M. P. Mollah, M. A. Razzaque, M. M. Hassan, A. Alamri, G. Fortino and M. Zhou, "Optimal Dynamic Pricing for -Off User Utility and Operator Profit in Smart Grid", in IEEE Transactions on Systems, Man, and Cybernetics: Systems, vol. 50, no. 2, pp. 455-467, Feb. 2020, doi: 10.1109/TSMC.2017.2764442.

Conference

Ferdous, J., Fricke, G.M., Moses, M.E. (2022). Modeling Immune Search Through the Lymphatic Network. In: , et al. Swarm Intelligence. ANTS 2022. Lecture Notes in Computer Science, vol 13491. Springer, Cham. https://doi.org/10.1007/978-3-031-20176-9_30

Workshop

Jannatul Ferdous, G. Matthew Fricke, Juddy Cannon and Melanie E. Moses, "Distributed Processing in Lymph Nodes Supports a Scalable Immune Response", Accepted for 8th Workshop on Biological Distributed Algorithm, 2021, in conjunction with PODC 2021

Technical Skills

Programming Languages: Java, Python, C, MATLAB, Haskell, NetLogo
Databases: MySQL, Oracle
Tools & Libraries: Git, MASON, OpenCV, OpenGL, TensorFlow, Keras

Research Talk

Virus Dynamic Workshop, 2021
Biological Distributed Algorithms (BDA) Workshop, 2021, co-located with PODC.
STEM Symposium, UNM, 2020
CS Student Conference, UNM, 2019

Graduate Courses

Algorithms & Data Structure, Data Mining Techniques, Complex Adaptive System, Immunology, Geometric & Probabilistic Methods in CS, Intro to Cybersecurity, Introduction to Theory of Computation, Experimental Methods in CS.

Professional Service Activities

President of computer science graduate student association, UNM (2020 - 2021)

Organized 15th annual Computer Science Student conference, 2021.

Secretary of computer science graduate student association, UNM (2019 - 2020)

Organized fall graduate student orientation, 2020.

Reviewer, BDA 2021

Biological Distributed Algorithms Workshop, co-located with PODC.

References

Dr. Melanie Moses
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