SAJEEWA PEMASINGHE WALIMUNI DEWAGE
(PERMANENT RESIDENT)

33 St Andrews Drive, Glenmore Park,
New South Wales, Australia 2745

sajeewasp@gmail.com ☎ 0466030111

WWW: https://www.linkedin.com/in/sajeewa-pemasinghe-ph-d-64730015/

Summary

A dedicated university lecturer and researcher in IT with over a decade of teaching experience. Deeply committed to excellence in teaching across the fields of IT. Continuously seeking self-improvement and implementing innovative approaches in education and research endeavours. Striving to integrate cutting-edge technologies such as machine learning, deep learning, and robotics into research initiatives to push the boundaries of scientific and technological advancements.

Skills

- Data analytics
- Digital delivery of units
- Advanced software engineering
- Artificial intelligence
- IT project management
- Devops

- Python, Java, C++, C programming
- Robotics
- Computational mathematics
- Data science
- Wireless communication and networks
- Research methodology

Education

Ph.D.: Computational modelling and simulations
Wayne State University - United States

Master of Science (MSc): Information Technology
Sri Lanka Institute of Information Technology

Certificate: Data Analysis with Python
IBM – United States

Certificate: Machine Learning
Stanford University – United States

Advanced Certificate: Information Technology
University of Colombo - Sri Lanka

Experience

POSTDOCTORAL ASSOCIATE, 11/2016 - 12/2018
New York University – United States

- Preparing research manuscripts and publishing results in journals.
- Performing statistical analyses on three-dimensional trajectory data.
- Participating in international research conferences to present research findings.

DOCTORAL STUDENT/GRADUATE RESEARCH & TEACHING ASSISTANT, 08/2010 - 05/2015
Wayne State University, **United States**

- Preparing research manuscripts and publishing results in journals.
- Scientific software development for implementing statistical analyses of three-dimensional trajectory data from simulations.
- Performing computer simulations of biological molecules.
- Use of Java, Python, and bash scripting to analyse patterns in large biological datasets.
- Analysing simulation data and genomic data using algorithmic approaches and other bioinformatics tools.
- Preparing descriptive and visually appealing illustrations of results and outcomes and presenting them at local and international conferences
- Demonstrating and explaining lab experiments and theory to undergraduate students.
- Conducting and grading exams.
- Monitoring student progress and providing personalized guiding sessions.

In my most recent job I worked as a Senior Lecturer at Wayamba University of Sri Lanka from 2019 to May 2024 where I delivered lectures encompassing various topics in IT and guided undergraduate students in research related to the use of deep learning, scientific programming, and robotics in food technology applications.

I also worked as a Senior Lecturer/Consultant at National Institute for Business Management (NIBM) Sri Lanka, where I spearheaded the creation of BSc Hons (Data Science) and the Advanced Diploma in Data Science programs along with the comprehensive module content of each program. Furthermore, I worked as the Sri Lankan counterpart from NIBM in gaining the accreditation for both programs from the Coventry University, UK.

Selected Publications

[1] **S. Pemasinghe** and P. K. W. Abeygunawardhana, "Development of an Elephant Detection and Repellent System based on EfficientDet-Lite Models," in *2023 International Conference for Advancement in Technology (ICONAT)*, Goa, India: IEEE, Jan. 2023, pp. 1–6. doi: 10.1109/ICONAT57137.2023.10079959.
[2] **S. Pemasinghe**, D. Dayarathna, P. M. R A Panditharathna, S. Saparamadu, and J. Wickramarathne, "An Online Dashboard Platform for Weather Data of Major Sri Lankan Cities, and Global Climate Trends," in *2022 IEEE Bombay Section Signature Conference (IBSSC)*, Mumbai, India: IEEE, Dec. 2022, pp. 1–6. doi: 10.1109/IBSSC56953.2022.10037514.
[3] **S. Pemasinghe** and S. Rajapaksha, "Comparison of CPU Scheduling Algorithms: FCFS, SJF, SRTF, Round Robin, Priority Based, and Multilevel Queuing," in *2022 IEEE 10th Region 10 Humanitarian Technology Conference (R10-HTC)*, Hyderabad, India: IEEE, Sep. 2022, pp. 318–323. doi: 10.1109/R10-HTC54060.2022.9929533.
[4] **S. Pemasinghe** and P. K. W. Abeygunawardhana, "Simulated Annealing and It's Application in Molecular Structure Optimizations," in *2021 10th International Conference on Information and Automation for Sustainability (ICIAfS)*, Negambo, Sri Lanka: IEEE, Aug. 2021, pp. 258–262. doi: 10.1109/ICIAfS52090.2021.9605818.

Additional Information

Referees and additional information available upon request.