

LOKESH CHANDRA DAS

CS³ Lab, Department of Computer Science
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EDUCATION

University of Memphis, Memphis, TN USA *August 2019 - May 2024*
Doctor in Philosophy in Computer Science, GPA: 3.96 *May 2024*
MS in Computer Science, the University of Memphis, GPA:3.95 *May 2022*
Advisor: Dr. Myounggyu Won

RESEARCH INTERESTS

Machine Learning & Data Science, Reinforcement Learning, Intelligent Transportation Systems Robotics, Computer Vision, Connected & Autonomous Vehicles,

RESEARCH EXPERIENCE

Connected Smart Sensor System (CS³) Lab *University of Memphis*
Graduate Researcher (Google Scholar) *August 2019 - Present*
Supervisor: Dr. Myounggyu Won

- Working on a machine learning based next-generation traffic control system for autonomous vehicles.
- Developed a Dynamic Adaptive Cruise Control system.
- Designed a Safety-Aware Intelligent Adaptive Cruise Control system.
- Implemented a novel hybrid multi-agent lane-change system for autonomous vehicles.
- Proposed Intra-platoon gap adaptation for highway on-ramp merging scenarios.

Computational Intelligence Lab (CIL) *University of Memphis*
Research Intern (Graduate Researcher) *Summer 2022 & Summer 2023*
Supervisor: Dr. Bonny Banerjee

- Reviewed state-of-the-art works on machine learning-based speech emotion recognition.
- Extracted speech features from three benchmark speech datasets using Python, TensorFlow, and Convolutional Neural Networks.
- Conducted experiments with attention-based variational autoencoder and compared model performances with SOTA.
- A novel message-passing algorithm among nine different variational autoencoders (VAEs) on the MNIST dataset.

TEACHING EXPERIENCE

Instructor *Fall 2023 – Present*
Department of Computer Science *University of Memphis*
Course: COMP 4272/6272: System Administration and UNIX Programming

- Taught a class of 30 students as an independent instructor.
- Prepared lectures, delivered lectures, created assignments, and managed a teaching assistant.
- Created exam booklets.

Teaching Assistant

August 2021 – Spring 2023

Department of Computer Science

University of Memphis

- COMP 1900 LAB – Introduction to Programming (Spring 2023)
- COMP 3825 – Networking and Information Assurance (Fall 2022)
- COMP 7/8747 – Advanced Topics in Machine Learning (Fall 2022)
- COMP 7745 – Machine Learning (Summer 2022)
- COMP 2150 – Data Structure and Object-Oriented Programming (Summer 2022)
- COMP 7745 – Machine Learning (Spring 2022)
- COMP 7012 – Foundation of Software Engineering (Spring 2022)
- COMP 4/6151 – Introduction to Data Science (Fall 2021)
- COMP 7130 – Information Retrieval and Web Search (Fall 2021)

PUBLICATIONS

- **Das, L. C., & Won, M.** (2021, July). Saint-acc: Safety-aware intelligent adaptive cruise control for autonomous vehicles using deep reinforcement learning. In *International Conference on Machine Learning* (pp. 2445-2455). PMLR.
- **Das, L., & Won, M.** (2021, May). D-ACC: Dynamic Adaptive Cruise Control for Highways with Ramps Based on Deep Q-Learning. In *2021 IEEE International Conference on Robotics and Automation (ICRA)* (pp. 1572-1578). IEEE.
- Yadavalli, S. R., Das, L. C., & Won, M. (2022). RLPG: Reinforcement Learning Approach for Dynamic Intra-Platoon Gap Adaptation for Highway On-Ramp Merging. *2023 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS). IEEE, 2023.*
- Abbasi, J. A., Imran, N. M., Das, L. C., & Won, M. (2022). Watchped: Pedestrian crossing intention prediction using embedded sensors of smartwatch. *2023 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS). IEEE, 2023*
- Das, L. C., Dasgupta, D., & Won, M. (2022). LSTM-Based Adaptive Vehicle Position Control for Dynamic Wireless Charging. *2023 IEEE 26th International Conference on Intelligent Transportation Systems (ITSC). IEEE, 2023*
- **Das, Lokesh Chandra, and Myounggyu Won.** "LCS-TF: Multi-Agent Deep Reinforcement Learning-Based Intelligent Lane-Change System for Improving Traffic Flow." *arXiv preprint arXiv:2303.09070* (2023).
- **Das, Lokesh Chandra, and Myounggyu Won, "A generalizability Framework for Various Road Types" (In Progress).**
- **Das, Lokesh Chandra, and Bonny Banerjee "Speech Emotion Recognition using Attention-based Variational Autoencoder" (In Progress).**
- **Das, Lokesh Chandra, and Bonny Banerjee "Handwritten numeral generation using message-passing algorithm" (In Progress).**

PROFESSIONAL SERVICE

Reviewer

- IEEE Robotics and Automation Letters (April – 22, Sep – 22, Nov – 23)
- IEEE Symposium Series on Computational Intelligence (SSCI)
- IEEE Congress on Evolutionary Computation (CEC)

AWARDS & SCHOLARSHIPS

Doctoral Fellowship

- Carnegie R1 Doctoral Fellowship in Computer Science,

August 2019 – July 2021

University of Memphis

Graduate Assistantships

- Graduate Teaching Assistantships, Department of Computer Science

August 2021 - Present

University of Memphis

Travel Grants

- Graduate Student Association (GSA) Travel Grant, University of Memphis (2023)
- Graduate Student Associate (GSA) Travel Grant, University of Memphis (2023)
- College of Arts and Science Travel Grant, University of Memphis (2023)
- IROS Travel Grant (2023)

Industry Award

- Best Software Developer Award, Samsung R&D Institute Bangladesh Ltd.

MENTORSHIP & ACTIVITIES

- Supervised Two master's students on their MS projects.
- Supervised a teaching assistant.
- Member: Graduate Student Association (GSA) University of Memphis August 2019 – Present
- Member: Bangladesh Student Association (BSA) University of Memphis August 2019 – Present

REFERENCE

Dr. Myounggyu Won

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Dr. Bonny Banerjee

Associate Professor

Institute for Intelligent Systems and Dept. of Electrical & Computer Engineering

University of Memphis, Memphis, TN 38152, USA

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Dr. Md Zahangir Alom

Senior Bioinformatics Research Scientist

St. Jude Children's Research Hospital, Memphis, TN 38105,

Adjunct Faculty

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