MD Jubair Ahmed Sourov

Dhaka, Bangladesh

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RESEARCH INTEREST

Machine Learning, Deep Learning, Multi Agent Systems.

EDUCATION

BSc in Robotics and Mechatronics Engineering   **University of Dhaka, Dhaka Bangladesh**
CGPA 3.69/4.00   *2016-2020*

CGPA of last 2 years : 3.77

WORKING EXPERIENCE

Independent University Bangladesh   **Dhaka, Bangladesh**
Research Associate, Center for Computational and Data Sciences   *July 2022 - present*

Ongoing Projects: Stroke Rehabilitation Project (funded), Particle tracking and Visualization (CERN)

KEY SKILLS

Programming Language	Python, C, C++, MATLAB
Research Tool	PyTorch, Tensorflow, LaTex

PUBLICATIONS

- **Classifying Eye-Tracking Data using Saliency Maps**; Shafin Rahman; Sejuti Rahman; Omar Shahid; Md. Tahmeed Abdullah; Jubair Ahmed Sourov. (2021, January). Classifying Eye-Tracking Data Using Saliency Maps. In 2020 25th International Conference on Pattern Recognition (**ICPR**) (pp. 9288-9295). IEEE.
  https://ieeexplore.ieee.org/abstract/document/9412308

- **Simulation of Pattern Formation of Swarm withMinimum Shape Parameters**, Md. Tahmeed Abdullah; Md. Jubair Ahmed Sourov; Sejuti Rahman; Sujan Sarker; Joint 9th International Conference on Informatics, Electronics & Vision (ICIEV) and 2020 4th International Conference on Imaging, Vision & Pattern Recognition (icIVPR). IEEE, 2020.
  https://ieeexplore.ieee.org/abstract/document/9306556

RESEARCH EXPERIENCE

[Funded]"Developing an automated screening method of autistic children utilizing their visual attention."

- Develop a novel method to classify autistic children from typically developed children using eye-tracking data
- Collected data from the Institute of Paediatric Neuro disorder and Autism, BSMMU
- Analyzed data and develop a Machine Learning model to accurately classify healthy and children with autism
- Funded from Innovation Grant by the Ministry of ICT, Peoples Republic of Bangladesh

[Funded]"Rexplorer: Swarm robot based rescue operation and exploration "

- Multi agent system of independent robots for collaborative locomotion and exploration.
- Robots driven by microcontroller were coordinated by a central controller.
- Undergraduate final project to develop autonomous flock of swarm robots for exploration.

[Commercial]"Autonomous Air conditioner control system "
- Developed an intelligent system to monitor room and detect human presence.
- When no human is present, it turns off the air condition by wireless method

SELECTED ACADEMIC PROJECTS

Hand Gesture Recognition System   *Jan 2019-April 2019*
- Collected had gesture data by flex sensors
- Developed a machine learning model for automated detection hand gesture recognition and American Sign Language recognition

VOLUNTARY ACTIVITIES

- Mentor & Organizer, Bangladesh Robot Olympiad (2018-2019).
  - Conducted robotics boot camps and prepared for International Robot Olympiad
  - Organized the national event of Bangladesh Robot Olympiad

- Founding Director, Manager and Content Creator, www.musophia.com (2017-Present).
  - The ultimate platform dedicated to music in Bengali language

- Robotics Instructor, Mindcraft Labs.

CERTIFICATION COURSES

- Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning
- Natural Language Processing with Classification and Vector Spaces
- Convolutional Neural Networks in TensorFlow
- Convolutional Neural Networks
- How Google does Machine Learning
- Neural Networks and Deep Learning
- Structuring Machine Learning Projects
- Natural Language Processing with Classification and Vector Spaces
- Sequence Models

REFERENCES

- **Dr. Sejuti Rahman**
  Postdoc(Carnegie Mellon University, USA)
  Postdoc (University of Technology Sydney, Australia)
  Ph.D. (Australian National University)
  Assistant Professor
  Department of Robotics and Mechatronics Engineering,
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