SUMAITA BINTE SHORIF

Dhaka, Bangladesh

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RESEARCH INTEREST

Software Engineering, Code Review, Machine Learning, Deep Learning, Intelligent Systems Development

EDUCATIONAL QUALIFICATION

Wayne State University **Aug 2024 – Present**
Ph.D. Student in Computer Science **CGPA: 4.00/4.00**
Supervisor: Dr. Amiangshu Bosu

Jahangirnagar University **Feb 2019 – July 2024**
B.Sc (Hons) in Computer Science and Engineering **CGPA: 3.82/4.00 (Rank: 4/59)**
(Awarded Merit Scholarships in All Semesters)
Research Project: Classification of Butterfly Images Using Deep Learning and Bag-of-Features

RESEARCH AND TEACHING EXPERIENCE

Graduate Research Assistant, Wayne State University **August 2024 - Present**

Lecturer, Bangladesh University of Business and Technology (BUBT) **July 2024 - August 2024**
Courses Taught: CSE 327: Software Engineering, CSE 328: Software Engineering Lab

SELECTED PUBLICATIONS

1. MultiResEdge: A Deep Learning-Based Edge Detection Approach. Kanija Muntarina, Rafid Mostafiz, Fahmida Khanom, **Sumaita Binte Shorif**, Mohammad Shorif Uddin. Published in **Intelligent Systems with Applications, Elsevier(WoS, Scopus, Q1)** vol. 20, November 2023.[Paper]

2. A Dataset for Successful Recognition of Cucumber Diseases. Nusrat Sultana, **Sumaita Binte Shorif**, Morium Akter, Mohammad Shorif Uddin. Published in **Data in Brief, Elsevier(WoS, Scopus, Q2)** vol. 49, August 2023. [Paper]

3. Notes on edge detection approaches. Kanija Muntarina, **Sumaita Binte Shorif**, Mohammad Shorif Uddin. Published in **Evolving Systems, Springer(WoS, Scopus, Q2)**, March 2021.[Paper]

4. Computer Vision-Based Algorithms on Zebra Crossing Navigation. **Sumaita Binte Shorif**, Sadia Afrin, Anup Majumder, Mohammad Shorif Uddin. Published in the Proceedings of International Joint Conference on Advances in Computational Intelligence **(IJCACI 2021)**, 23-24 October 2021, New Delhi, India. **Algorithms for Intelligent Systems, Springer**, pp. 319-328. [Paper]

5. Medicinal Plant Recognition from Leaf Images Using Deep Learning. Md. Ariful Hassan, Md. Sydul Islam, Md. Mehedi Hasan, **Sumaita Binte Shorif**, Md. Tarek Habib, Mohammad Shorif Uddin. Published in Computer Vision and Machine Learning in Agriculture, Volume 2, **Springer**, pp. 137-154, 2022. [Paper]

6. Role-Framework of Artificial Intelligence in Combating the COVID-19 Pandemic. Mohammad Shorif Uddin, **Sumaita Binte Shorif**, Aditi Sarker. Published in Vision, Sensing and Analytics: Integrative Approaches, **Springer**, pp. 357-370, 2021. [Paper]

7. Robots and Drones in Applications - A Survey. Rabeya Basri, Fahmida Islam, **Sumaita Binte Shorif**, Mohammad Shorif Uddin. Published in Computer Vision and Machine Learning in Agriculture, **Springer**, pp. 9-30, 2021. [Paper]

8. Machine Vision-Based Fruit and Vegetable Disease Recognition: A Review. Md Tarek Habib, Md Ariful Islam Arif, **Sumaita Binte Shorif**, Mohammad Shorif Uddin, Farruk Ahmed. Published in Computer Vision and Machine Learning in Agriculture, **Springer**, pp. 143-157, 2021. [Paper]

9. Deep Learning-Based Essential Paddy Pests' Filtration Technique for Economic Damage Management. Md Zahid Hasan, Nahid Zeba, **Sumaita Binte Shorif**, Morium Akter. Published in Computer Vision and Machine Learning in Agriculture, **Springer**, pp. 51-65, 2021. [Paper]

TECHNICAL SKILLS

Competitive Programmer in C/C++
Digital Artist, Proficient at creating vector logos and graphic design
Languages: Python, C, C++, Java, SQL, Javascript, HTML, CSS, MATLAB, Prolog, Assembly

Machine Learning: PyTorch, Keras, Tensorflow, OpenCV
Developer Tools: VS Code, Android Studio, LATEX, PyCharm, Django, Weka, , Jupyter Notebook, Git
Illustration Tools: Proficient in Adobe Illustrator, Adobe Fresco

SELECTED PROJECTS

RecycloBD: One man's trash is another man's treasure | **Android Studio: Java** **Oct 2020**

- A mobile app that facilitates turning trash into treasure. The aim of this app is to ensure proper waste recycling and management on both personal and industrial level.

Dhar Hobe - A Bangladeshi Product Renting System | **Python, Django, Bootstrap** **March 2024**

- Developed a web app which simplifies life with our product renting system "Dhar Hobe". Borrow what you need, lend what you have!

IlluminateTech: Smart Classroom Lighting Solutions | **Arduino, NodeMCU** **May 2024**

- Develped an automated lighting system using Arduino and NodeMCU

SELECTED AWARDS AND ACHIEVEMENTS

- **1st Runner Up**, Power Up Inter-University Online Business Plan Competition 2020 organized by Varendra University, Bangladesh - Jan, 2021.
- **Shortlisted Participant**, made it to the top 100 teams out of 3700+ teams from all over the country in **ideaTHON Contest 2020** organized by Startup Bangladesh — Innovation, Design Entrepreneurship Academy (iDEA) — Bangladesh Computer Council — ICT Division -Nov, 2020
- **Jahangirnagar University Merit Scholarship:** Awarded **scholarships** for academic excellence from among 420 students from session 2019 to present.
- **Champion**, BDOSN Dev Mania 2020, **Hackathon** Organized by: BdOSN (Bangladesh Open Source Network), October 04 2020 -Oct 07, 2020
- **Honourable Mention**, PrivaShe Hacks'20, Hackathon Organized by: PrivaC -July, 2020
- Participated in **100+** Prestigious Competitive Programming Contests and obtaining good ranks (both onsite and online) including **IEEE Xtreme 14.0, ICPC Dhaka Regional Preliminary Contest 2020** and so on.

SELECTED CO-CURRICULAR ACTIVITIES AND SERVICES

- Created hundreds of **digital artwork and logo designs**
- **Creative Development Secretary**— **Jahangirnagar University Computer Club:**
  Directed event operations, media engagements of the organization. March 2020 - Present
- **Alpha Ambassador** at Microsoft Student Learn Ambassadors. April 2021 - July 2022
- **Bangladesh National Television(BTV)** Parliamentary English Debate Speaker, TV program no. 3412/7, 28 Sept 2016.
- Medium Article published in 2020- **"Is Art Generated by Artificial Intelligence Really Art?"**