

MD SHAFIKUL ISLAM

📍 Dhaka, Bangladesh

✉ shafikul37@student.sust.edu

📞 +880-1760329288

🌐 [Linked In](#)  [GitHub](#)  [Semantic Scholar](#)

🔗 [LeetCode](#)  [DataCamp](#)  [Coursera](#)

Research Objectives

Synergies Mathematical Optimization and Artificial Intelligence to achieve transformative advancements in Business organizations.

Research Experience

- 2023 – Present **Research Assistant, Computational Intelligence and Operations Lab**
- ◆ Co-founded a research lab to inspire a culture of impactful research initiatives.
 - ◆ Contributed to publishing 4-5 papers in top conferences and workshops.
- 2022 – 2023 **Research Assistant, SUST Research Centre**
- Project: *Development of an Automated Timetabling Software Using Genetic Algorithm*
- ◆ Executed data processing, model evaluation, and website development.

Education

- 2019 – Present **BSC, Industrial and Production Engineering**
- Cumulative GPA (till last semester): **3.73 / 4**
- Shahjalal University of Science and Technology

Research Publications

Conference Proceedings

- 1 **Islam, M. S.**, & Wasi, A. T. (2023). Optimizing Inventory Routing: A Decision-Focused Learning Approach using Neural Networks. In *New in Machine Learning Workshop, NeurIPS 2023*. Retrieved from <https://arxiv.org/abs/2311.00983>
- 2 **Islam, M. S.**, & Wasi, A. T. (2023). Multivariate Time Series Analysis and Forecasting on Air Quality Index with Industrial Statistics: A Case Study of Bangladesh. In *7th international conference on engineering research, innovation and education 2023*.

Manuscript Under Review

- 1 Wasi, A. T., **Islam, M. S.**, & Akib, A. R. (2023). Supplygraph: A benchmark dataset for supply chain planning using graph neural networks. *Graphs and more Complex structures for Learning and Reasoning workshop, AAAI 2024*.

Current Research Projects

- 1 **Undergraduate Thesis:** Utilizing Prescriptive Analytics for Developing an Optimal Preparatory Leave Schedule.
 - ◆ Advisor: [Dr. Abul Mukid Md. Mukaddes](#)

2 Evaluating Challenges to the Adoption of Smart Textiles in Ready-made Garment Industries: Implications for Sustainable Business Management.

◆ Advisor: Saifur Rahman Tushar

Technical Skills

Programming	Python, MATLAB, C, Julia (Basic)
Optimization	Gurobi, Pyomo, CVXPY(Basic), JuMP (Basic)
Data Science	Jupyter, Pandas, Matplotlib, Seaborn, NumPy, Tableau, MySQL
Machine Learning	Scikit-learn, PyCaret, TensorFlow (Basic)
Miscellaneous	LaTeX, Microsoft Office, AutoCAD, Arena

Courses and Certification

Optimization	Operations Research Model & Applications, Algorithm, Theory, Gurobi Training: Optimization 101 for Data Scientists, Optimization On-ramp.
Programming	Python for Everybody, Python Fundamental Track.
Data Science	Data Analyst by 365 Data Science, Machine Learning.
Miscellaneous	Game Theory, Supply Chain Management, Academic Writing, Project Management.

Industrial Training

Nov - Dec 2023	Conducted practical training on Operations Process, Instrumentation & Control and Industrial Hazard & Safety at the Training Institute of Chemical Industries (TICI).
Dec 2022	Completed 10-day hands-on training program covering Machine Shop, Welding, and Advanced Manufacturing at the Bangladesh Industrial and Technical Assistance Center (BITAC).

Projects

Product Design	Designed and developed a solar panel-based helmet for sustainable power supply.
Instrumentation	Developed a Dust Particle Measuring Device using IR and Photo Sensors for environmental monitoring.

Achievements & Extra-Curricular Activities

- ◆ Solved over 180 problems on LeetCode and actively participated in various online coding contests.
- ◆ Earned a Perfect Attendance Certificate for regularity and discipline at Notre Dame College.
- ◆ Mentored and assisted more than 10 individuals in learning Python programming.
- ◆ Participated in Math, Physics, and Chemistry Olympiads.
- ◆ Contributed as a volunteer to the Notre Dame College Math and Science Club.

Reference

Dr. Abul Mukid Mohammad Mukaddes

✉ mukaddes-ipe@sust.edu

Shahjalal University of Science and Technology