Amit Kumar Saha

Graduate Research Assistant - University of Arkansas

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EDUCATION

Ph.D. in Industrial Engineering	Expected: Dec 2026
University of Arkansas	**GPA: 3.86/4.00**
MS in Industrial Engineering	Awarded: Dec 2022
The University of Texas at El Paso (UTEP)	**GPA: 4.00/4.00**
B.Sc. in Industrial and Production Engineering	Awarded: April 2018
Khulna University of Engineering and Technology (KUET), Khulna, Bangladesh.	

TECHNICAL SKILLS

- **Programming Language:** Python, R
- **Statistical Data Analysis:** JMP, SPSS, Minitab, Microsoft Excel
- **Optimization Solver:** GUROBI
- **Simulation Software:** SIMIO, Anylogic, Flexsim
- **Computer-Aided Design (CAD) Software:** SolidWorks, AutoCAD

CERTIFICATIONS

Lean Six Sigma Yellow Belt – Texas Manufacturing Assistance Center (TMAC)	Feb 2022
Data Science Foundations (Level 1) – IBM (LinkedIn)	Mar 2021
Data Science Tools – IBM (LinkedIn)	Mar 2021
Data Science Methodologies – IBM (LinkedIn)	Mar 2021
Python for Data Science – IBM (LinkedIn)	Mar 2021
Data Analysis Using Python - IBM (LinkedIn)	Mar 2021

RESEARCH EXPERIENCE

Project: Developing machine learning classifiers from the vibration signals dataset.   **UARK, AR, May 2023**

- Different trained machine learning classifier models were developed in R to classify faulty sun gears.
- All the classifiers were evaluated through the test dataset based on 'accuracy' and the best model (Accuracy of 93%) was used.

Project: Developing machine learning predictive models to predict the popularity of an online video.   **UARK, AR, Mar 2023**

- Several machine learning models were developed in R to predict the growth of a YouTube Video.
- The models were evaluated based on RMSE value and the best model was used for prediction.

Project: Texas Tech University Health Sciences Center Mailroom Work Optimization.   **UTEP, TX, June 2022 – Aug 2022**

- Identified the Key Performance Indicators (KPI) associated with the workflow of mailroom
- Optimized the value-added time of the delivery and standardize the work procedure
- Reduced the delivery time of mail and packages by 35 seconds

Project: Supply Chain Digital Twin   **UTEP, TX, Apr 2021- Dec 2022**

- Analyze the potential supplier from the region
- Collaborate with similar companies to ensure better responsiveness to customer
- Execute the best use of the money within the region

Project: Machine Scheduling Development   **KUET, Bangladesh, May 2017 – Oct 2017**

- Increased the productivity of 2.61% of a jute industry through proper synchronization of Drum-Buffer-Rope scheduling
- Optimized the value-added time of an industry and return on investment increased by 0.3% per month
- Resulted in journal publication

Project: Network Development of Supply Chain   **KUET, Bangladesh, June 2017- Mar 2018**

- Optimized the supply chain transportation cost, reduced by 2.96%
- Development of supply chain transportation mode and network
- Improved the material handling in supply chain stages by 4%

PROFESSIONAL EXPERIENCE

University of Arkansas: Graduate Research Assistant   **Fayetteville, AR, Jan 2023- Present**
Research Areas: Applied Statistics, Data Analytics, Operations Research, Machine Learning

University of Texas at El Paso (UTEP): Graduate Research and Teaching Assistant   **El Paso, TX, Jan 2021- Dec 2022**
Interested Areas: Supply Chain Management, Discrete Event Simulation
Courses: Industrial Systems Simulation, Decision Support System

British American Tobacco Bangladesh: Infrastructure Analyst   **Sept 2019 - Dec 2020**
- Shop floor production integrated software maintenance- Reduced managerial paperwork by 30%
- Shop floor production integrated software trainer of around 400 machine employees resulted in 10% efficient and errorless data input
- Troubleshooting of production integrated software difficulties and observation of data analysis using Microsoft Excel and SPSS
- Connected shop floor real time data in production integrated software by Python and R programming in order to visualize from the managerial level for the decision making which Increases the response time of the company by 7%

DBL Group: Junior Executive, Planning   **Bangladesh, Feb 2019 – Aug 2019**
- Forecasted and planned the production demand using MS Project that increased the fill rate of orders by 5% from the last year

JOURNAL ARTICLES

1. Saha, Amit Kumar. Analyzing the Supply Chain Operation of a Fast-Food Restaurant Using Simulation Modeling and Developing a Cost Estimation Optimization Model in the Disruption Period. MS thesis. The University of Texas at El Paso, 2022.
[Analyzing the Supply Chain Operation of a Fast-Food Restaurant Using Simulation Modeling and Developing a Cost Estimation Optimization Model in the Disruption Period](#)

2. Al Amin, Md, Amit Kumar Saha, and Tanzira Ulfat Mohona. "Performance improvement of jute industries using the theory of constraints (TOC)." European Journal of Advances in Engineering and Technology 5.5 (2018): 303-311.
[Performance Improvement of Jute Industries using Theory of Constraints (TOC)](#)

SCHOLARSHIPS/AWARDS/ACHIEVEMENTS

- Johns-Lane Endowed Graduate Academic Award   **UARK, USA, 2024**
- Reginald R. 'Barney' & Jameson A. Baxter Graduate Fellowship   **UARK, USA, 2024**
- Industrial Engineering Graduate Fellowship for 2023-24 & 2024-25   **UARK, USA, 2023 & 2024**
- Doctoral Students Travel Grant for IISE Annual Conference and Expo 2023 and 2024   **UARK, USA, 2023 & 2024**
- Outstanding Graduate Student Award   **UARK, USA, Apr 2024**
- Outstanding Graduate Student Award   **UTEP, USA, Dec 2022**
- Dean's List award in 2018 for attaining at least 3.75 GPA out of 4.00 in Level 4   **KUET, Bangladesh, Aug 2019**

LEADERSHIP EXPERIENCE

Treasurer, INFORMS Student Chapter at University of Arkansas   **UARK, Aug 2024 - Present**
- Organized guest faculty research presentation seminar for the Industrial Engineering students at University of Arkansas
- Organized graduate intern experience sharing panel session in the department of Industrial Engineering

Treasurer, Bangladeshi Student Association (BSA) at UTEP   **UTEP, May 2021- Dec 2022**
- Managed and oversaw the BSA organization for the welfare of graduate and Undergraduate students of almost 100
- Actively participated in the Student Engagement and Leadership Center (SELC) activities on behalf of BSA at UTEP
- Organized annual picnic, recreational outdoor activities for the Bangladeshi community of 100 people