Khandaker "Arafin" Islam

Ph.D. Candidate, University of Nevada, Las Vegas

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in Khandaker Arafin Islam

Objective

Aspiring to leverage my skills in data analytics and science within the transportation system domain, where I can apply my knowledge in transportation safety, data science, and big data to contribute effectively, while gaining valuable hands-on experience and enhancing my skills in a dynamic work environment.

Technical Skills

Programming Languages: Python
Database Technologies: SQL
Data Analysis Libraries: Pandas, Numpy, Matplotlib
Data Visualization tools: Tableau
Other Tools: ArcGis, Synchro

Leadership

ITE UNLV Student Chapter
President   Sep'23 – Present
Vice President   Sep'22 – August'23

Awards

Southern Nevada Chapter, International Code Council Scholarship   2024-2025
Summer Doctoral Fellowship   UNLV 2023, 2024
Patricia Sastaunik Scholarship   UNLV 2023, 2024
Tao Scholarship for Unity   UNLV 2022

Conferences

- Advanced Data Visualization for Identifying Bottleneck Intersections and Speed Profiles in City of Henderson's Road Network
  - 2024 Fall Transportation Conference, Las Vegas
- Beyond Numbers: Navigating Road Safety Analyses with Integrated Datasets
  - 2024 ATSIP Traffic Records Forum

Education

Ph.D. Candidate, Civil and Environmental Engineering and Construction   Jan'22 – Present
University of Nevada, Las Vegas

Bachelor of Science, Civil Engineering   July'14 – Oct'18
Bangladesh University of Engineering and Technology

Work Experience

Transportation Technology Intern
Ludian LLC   May'24 – Aug'24
- Developed an interactive dashboard to visualize traffic congestion patterns, providing top management with data-driven insights to support strategic decision-making.

Graduate Assistant
Civil Engineering Department, UNLV   Jan'22 – Present
- Conduct literature reviews, data analysis, and provide TA support by overseeing labs, grading, and guiding students, ensuring effective project coordination and research quality.

Junior Engineer
Institute of Water Modelling   Feb'20 – Nov'21
- Climate data analysis, Field data collection, Data processing, Mapping and GIS data processing

Relevant Coursework

- Big Data Analytics for Infrastructure Applications
- Managing Big Data and Web Databases
- Advanced Machine Learning
- Applied Statistics for Engineer
- Transportation Safety

Projects

- Towards Zero Deaths: A Machine Learning Analysis of Crash Severity Factors in Nevada
  - Examined the primary factors influencing crash severity in rural and urban regions of Nevada
- Are Safety Outcomes Equitable across Urban and Rural roads: A Case Study from Nevada
  - Identified a significant safety disparity between urban and rural roads in Nevada, revealing rural roads to be four times more prone to fatal incidents compared to their urban counterparts