

MD. ASLAM MIA

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SUMMARY

Research enthusiast with strong interests in Intelligent Transportation Systems (ITS), Autonomous Vehicles, and the application of AI and ML in transportation. Experienced in image annotation for computer vision-based traffic parameter analysis. Currently conducting thesis research on analyzing the robustness of adaptive traffic control systems using Reinforcement Learning.

WORK EXPERIENCE

Image annotation for computer vision-based traffic parameter analysis

Annotated nearly 2,000 frames from a specific intersection in Roboflow, a computer vision tools, with the primary objective of identifying pedestrians based on age and gender for one of my department senior thesis works. Carefully and precisely annotated all frames and subsequently utilized the annotated dataset for further analysis and model development.

Ongoing thesis on analyzing the robustness of adaptive traffic control systems using RL

Using the microsimulation software SUMO, traffic scenarios were developed on a synthetic 4×4 grid network and tested under various traffic patterns and environmental conditions, such as rush hours and roadblocks. Robustness was assessed using recovery time, which refers to the duration required for the system to return to optimal performance after an unseen traffic event.

Worked as an Intern at PWD, Dhaka, Bangladesh

Gained hands-on experience in government construction projects by working with the Design Division, Project Division, and Materials Testing Laboratory. Participated in site visits, observed field operations, and developed practical knowledge of real-life construction practices, project management processes, and professional interaction in the workplace.

Undergraduate Capstone Project — Ongoing

Slum Relocation in the form of "Multistoried Residential Building Complex" based on Low-Cost Housing Concept. Through this project, gained hands-on experience with various software tools, enhanced real-life problem-solving skills, and developed practical knowledge in project planning and design.

TECHNICAL SKILLS

Machine Learning Frameworks, Reinforcement Learning, Python, Matlab, SUMO, C++, AutoCAD, Microsoft Tools, ETABS, SAP.

EDUCATION

BSC in Civil Engineering

Bangladesh University of Engineering and Technology (BUET)
CGPA : 3.53/4.00 (Up to L4-T1)