# AFIA JAHIN PREMA

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## SUMMARY

Detail-oriented and motivated Junior Transportation Engineer with 3 years of experience in planning, designing, and analyzing transportation infrastructure projects. Proven ability to support project teams in delivering efficient and sustainable transportation solutions. Skilled in traffic analysis and roadway design, as well as collaborating with multidisciplinary teams to meet project objectives and deadlines.

## TECHNICAL SKILLS

- **Design & Drawing:** AutoCAD, ETABS, Civil 3D, OpenRoads
- **Programming & Data Analysis:** Python, Excel, R, STATA
- **Traffic Simulation :** SUMO, VISSIM, VISTRO
- **Documentation:** Microsoft Office Suite

## PROFESSIONAL EXPERIENCE

**Graduate Research Assistant**                                      Jan 2024 – Ongoing
University of Texas at Arlington                          Arlington, Texas, United States,
**Project:** App-Based Crowd Sourcing of Bicycle & Pedestrian Conflict Data (Client: TxDOT)
- Conducted literature review, surveyed pedestrians, and engaged with cyclists.
- Developed survey questions, gathered field data, and prepared reports.

**Junior Transportation Engineer**                                    Jun 2021 - Dec 2023
DevConsultants Limited (DevCon)                                      Dhaka, Bangladesh
**Project:** App-Based Crowd Sourcing of Bicycle & Pedestrian Conflict Data (Client: TxDOT)
- Prepared dataset of roadway conditions based on a video survey
- Monitored roadway assets (signal, roadway markings)
- Identified the risk spots and design faults of pavement.
- Collected the crash data for the project highway, and calculated AADT and fatality rates.
- Collected global crash data, prepared a model for fatalities based on population
- Prepared O-D, WTP, Travel Time survey form
- Conducted Traffic Impact Assessment (TIA) and reports
- Assisted in detailed road safety assessment and designing safe road intersections.

## EDUCATION

**Master in Transportation Engineering**                                      Ongoing

University of Texas at Arlington

**Bachelor of Science in Civil Engineering**                                March 2021

Islamic University of Technology (IUT), Bangladesh

## PUBLICATIONS

Miti, M. M., **Prema, A. J**., Raihan, M. A., & Hossain, M. (2023). Women's Vulnerability on Public Transport. Transportation research record, 2677(11), 414-427. https://doi.org/10.1177/03611981231165769. TRB AME20 Best Up-and-Coming Paper Award (2022)