

AAFIYA SHAH

+1(716) 495-0611 • afiya@buffalo.edu
[linkedin.com/in/aafiya-shah-82a00810a](https://www.linkedin.com/in/aafiya-shah-82a00810a)

EDUCATION

Master of Science in Transportation Systems Engineering *Expected: June 2017*

University at Buffalo, The State University of New York (GPA-3.85/4.0)

- **Course Work:** Traffic Safety, Traffic Operations & Design, Transportation Analytics, Statistical & Econometric Methods, Travel Demand Forecasting, Geometric Design of Highways, Pavement Materials & Design, Geographical Information Systems, Econometrics.

Bachelor of Technology in Civil Engineering *July 2013*

Islamic University of Science and Technology, J&K, India (GPA-4.0/4.0)

EXPERIENCE

Graduate Research Assistant, ESEA Research Laboratory, Department of Civil, Structural and Environmental Engineering, University at Buffalo, The State University of New York *December 2016-Present*

- Analyze traffic accident injury severities using fixed, uncorrelated and correlated random parameters model under the supervision of *Dr. Panagiotis Ch. Anastasopoulos*.
- Provide research support by preparing and analyzing available statistical data using LIMDEP tool.
- Perform a comparative analysis between the developed models.

Guest Lecturer, Government Polytechnic College-Ganderbal, J&K (India) *April 2015-July 2015*

- Courses taught: Water Supply & Waste Water Engineering and Structural Drawing.
- Other roles: Conduct field surveys using levels, theodolite and compass.

Intern, Public Works Department, J&K, (India) *January 2012-February 2012*

- Carried out field survey & cost estimation; Assisted Junior Engineer on site for various construction works.

SKILLS

Technical & Statistical Software's: SYNCHRO, VISSIM, ArcGIS, ArcMap, C, AutoCAD, Carlson, R, and LIMDEP

Additional Skills: Microsoft Office: PowerPoint, Excel and Word

GRADUATE RESEARCH

Analysis of Accident Injury Severity Using Statistical Models *Fall 2016-Present*

- Estimation of traffic accident injury severities using ordered probability models that will allow for the transformation of crash counts into crash severity counts using statistical software LIMDEP.
- Analysis of accident injury severity using Weibull, normal, triangular and several other distributions.
- Traffic crashes being a major problem, certain effective measures have been pursued to understand the impacts of crash severity and crash frequency.

ACADEMIC PROJECTS

Innovative Safety Features for Connected and Autonomous Vehicles *Fall 2016*

- Synthesis study of factors such as aggressive driving behavior that will bring about safety in autonomous vehicles.
- Brief study of the usage of algorithms and optimization theories in connected vehicles.

Corridor Modeling and Signal Optimization of a Study Area in Buffalo *Spring 2016*

- Observed and collected signal timings of 8 intersections along Main Street, Buffalo and modeled the collected data using VISSIM to check travel times and traffic delays.
- Evaluated performance of a corridor based on travel times, traffic delays and level of service.
- Optimized signal timings using SYNCHRO and proposed variations in traffic that will improve future traffic condition.

Location of US-231 in West Lafayette, Indiana *Spring 2016*

- Established best possible alignment of US-231 in West Lafayette, Indiana between SR-26 and US-52.
- Designed horizontal, vertical and cross-sectional alignments based on AASHTO and INDOT standards, design policies and specifications.

Travel Time Prediction using PEMS data US50W *Fall 2015*

- Predicted future travel times for 3 years using time series analysis.
- Analyzed given data to determine the relationship of speed, flow, number of lanes and occupancy with travel time.

Modeling Speeding Instances using Count Data Models *Fall 2015*

- Used Poisson and Negative Binomial models to analyze the relationship between the speeding occurrences and driver characteristics. Calculated marginal effects to describe the effect of predictor on response variables.

Safety Benefit Evaluation of a Study Area in Bloomington, Indiana *Fall 2015*

- Identified safety countermeasures and their safety benefits by evaluating police accident reports.

ACHIEVEMENTS

- Won 1st Prize among 41 participants in a Driving Simulation experience as part of my adviser's research work.
- Won 7 Awards for good customer service, consistency and teamwork as a Student Employee at *Campus Dining and Shops, University at Buffalo* between November 2015 to December 2016.