Subasish Das

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Education

University of Louisiana at Lafayette   Lafayette, Louisiana
PhD in Systems Engineering (Civil Option); cgpa: 4.00/4.00   *Summer 2015 (expected)*
Coursework: Transportation planning, Advanced Topics in Transportation Planning, Engineering Systems, Systems Engineering II, Lean Six Sigma, Linear Programming, Advanced topics in Transportation Systems Engineering.

University of Louisiana at Lafayette   Lafayette, Louisiana
MS in Mathematics (Statistics Core); cgpa: 3.75/4.00   *Summer 2015 (expected)*
Coursework: Regression Analysis, Design of Experiment, Mathematical Statistics, Sampling Theory, Categorical Data Analysis, Non-parametric Statistics, Advanced Theory of Non-parametric Statistics, Applied Multivariate Analysis, Linear Models, Operation Research, Econometrics.

University of Louisiana at Lafayette   Lafayette, Louisiana
Master Degree in Civil Engineering; cgpa: 4.00/4.00   *2012*
Coursework: Highway Safety Engineering, Transportation Materials, Traffic Flow Theory and Control, Pavement Design and Management, Engineering Project Management, Engineering Economics.

Bangladesh University of Engineering and Technology   Dhaka, Bangladesh
Bachelor Degree in Civil Engineering; First Class   *2007*

Awards

2015: 2015 Eno Transportation Fellow, Gulf Region ITS (GRITS) Scholarship, Best Paper Award (2nd Place) in ULL Graduate Research STEM Core, 2015 Data Incubator Data Science Fellowship Semi-finalist
2014: 2014 SASHTO Outstanding Graduate Research Award, 2014 AASHTO High Value Research Sweet Sixteen Award
2013: 2013 Gulf Region ITS (GRITS) Scholarship First Place Award
2011, 2012, 2013, 2014: Deep South Institute of Transportation Engineers Scholarship
2012: Travel award for 9th Postgraduate Academic Forum of Beihang University, China
2012: UL Engineering Designing Leader

Certifications

Transportation Engineering
1. Using IHSDM, 2. Protecting Human Research Participants for SHRP2, 4. Using ArcMap in ArcGIS, 5. Using Python in ArcGis.
Data Science and Web Analytics
1. John Hopkins University verified Specialization Certificate in Data Science (Coursera), 2. Introduction to Complexity (S. Fe Inst.)

Skill

Expert: R, IPython, Latex, CSS, Git, HTML5, M. Access, IHSDM.
Medium: SPSS, Bootstrap, TransCad, Matlab, ArcGIS, Ruby, Ruby on rails.

Work Experience

University of Louisiana at Lafayette   Lafayette, Louisiana
Research Assistant   *Jan '10 – present*
Worked as a key researcher of five state funded research projects under the supervision of Dr. Xiaoduan Sun. The Research Advisory Committee of the American Association of State Highway Transportation Officials has selected our research project (Safety Improvement from Edge Lines on Rural Two-Lane Highways / A Comprehensive Study on Pavement Edge Line Implementation) as one of its **High Value Research Projects for 2014**. Co-authored the final report of the project with my supervisor. My masters thesis "Evaluating Safety Improvement from Edge Lines on Rural Two-lane Highways" was also based on this award wining project. Also co-authored other two FHWA research reports. Contributed partially in the other two research projects as a co-author and researcher. Worked as a coordinator of Southern District ITE (SDITE) 2011 Annual Meeting in Lafayette, Louisiana. Currently workking on two DOTD projects: 1. Investigating Safety Impacts of Centerline Rumble Strip, Lane Conversion, Roundabout and J-turn Features on Louisiana Highways, 2. User Sentiment Analysis with Louisiana Social Media Data for Better and Effective Crash Countermeasures.

Teaching Assistant *Aug '12 – May '14*

Worked as teaching assistant under Dr. Md. Jamal Khattak and Dr. Xiaoduan Sun. Graded assignments for two courses: 'Pavement Design and Management' and 'Highway Materials'. Taught graduate level course 'Highway Safety Engineering'. Instructor of Interactive Highway Safety Design Model (IHSDM) course for five semesters. Coordinated to arrange Gulf Region ITS (GRITS) 2014 Spring Workshop in University of Louisiana.

Hennessey LLC   Dubai, United Arab Emirates

Quantity Surveyor *May '08 – Jun '09*

My job responsibilities: quantity survey as per design drawings, BOQ (Bill of quantity) preparation.

Mak Estate Developments Ltd.   Dhaka, Bangladesh

Project Engineer *Jun '07 – May '08*

My job responsibilities: design of 12m-50m high Steel Towers for telecom sector, make materials requisition form and inform to purchase department, BOQ check, project management.

Research Experience

University of Louisiana at Lafayette   Lafayette, Louisiana

Louisiana Roundabout Project *April '15 – present*

My tasks: data analysis, model development and validation, field study, report writing.

LTRC Transportation Innovation for Research Exploration (TIRE) Project *May '14 – June '15*

My tasks: data analysis, model development and validation, field study, report writing.

Louisiana Local Road AADT Project *Jan '14 – Dec '14*

My tasks: JSON Data Collection, Data Wrangling, Senti-lexicon design, Sentiment Analysis, Social Media Mining.

Sentiment Analysis Project *May '13 – present*

My tasks: social media data collection, senti-lexicon development, algorithm improvement.

Multiple Correspondence Analysis Project *May '13 – Aug '13*

My tasks: literature review, cluster analysis, non-parametric statistical modeling, paper writing.

Edge Line Project *Jul '12 – Jul '13*

This study was recently announced by the AASHTO Research Advisory Committee (RAC) as being awarded a spot on its **2014 Sweet Sixteen High Value Research Projects** list. I conducted the data analysis part of this project. I co-authored the final report of this project with my supervisor Dr. Xiaoduan Sun.

Louisiana Inexpensive Crash Countermeasure Project *Jan '11 – Jan '13*

My tasks: data analysis, data visualization, online analytical processing (OLAP), report writing.

Louisiana Crash Modification Factor Project *Jan '10 – Jul '12*

My tasks: literature review, CMF development, data visualization, report writing.

Peer-Reviewed Journal Publications

Transportation Research Record   2014, 2015

Xiaoduan Sun, **Subasish Das**, Zhongjie Zhang, Fan Wang, Charles Leboeuf   *Vol. 2433, pp. 121-128*

Investigating Safety Impact of Edge Line on Narrow Rural Two-Lane Highways by Empirical Bayes Method.

Subasish Das, Xiaoduan Sun *Accepted*

Factor Association using Multiple Correspondence Analysis in Vehicle-pedestrian Crashes.

Journal of Traffic and Transportation Engineering   Jan, 2015

Subasish Das, Xiaoduan Sun, Fan Wang, Charles Leboeuf   *Vol. 2, pp. 145-157*

Estimating the Likelihood of Future Crashes for the Crash Prone Drivers.

Materials and Structures   May, 2014

Mohammad J. Khattak, Ahmed Khattab, Hashim R. Rizvi, **Subasish Das**, Mohammad R. Bhuyan

Imaged-based discrete element modeling of hot mix asphalt mixtures.

Journal of Transportation Technologies   2014, 2015

Xiaoduan Sun, **Subasish Das**, Yulong He   *Vol. 4, No. 1, pp. 93-100*

Analyzing Crash-Prone Drivers in Multiple Crashes for Better Safety Educational and Enforcement Strategies.

Subasish Das, Xiaoduan Sun, Anandi Dutta   *Vol. 5, No. 2, pp. 69-75*

Investigating User Ridership Sentiments for Bike Sharing Programs.

International Journal of Engineering Research and Innovation   DEC, 2013

Subasish Das, Xiaoduan Sun, Yulong He, Fan Wang, Charles Leboeuf   *Vol. 5, No. 2, pp. 74-80*

Investigating the Safety Impact of Raised Pavement Markers on Freeways in Louisiana.

Journal of Transportation Safety and Security   MAR, 2013

Xiaoduan Sun, **Subasish Das**, Nicholas Fruge, RL Bertinot, Daniel Magri   *Vol. 5, No. 2, pp. 106-117*

Four-Lane to Five-Lane Urban Roadway Conversions for Safety.

Proceedings in International IEEE Conference on ITS   SEP, 2012

Yulong He, Xiaoduan Sun, Lizhen Du, Ruan Jinmei, **Subasish Das**   *pp. 1161-1165*

Level of service for parking facilities.

Federally Funded Project Reports

Louisiana Transportation Research Center (LTRC) Projects

Xiaoduan Sun, **Subasish Das**   *Report No. 14-4TIRE ; In Press*

User Sentiment Analysis with Louisiana Social Media Data for Better and Effective Crash Countermeasures.

Xiaoduan Sun, **Subasish Das**   *Report No. FHWA/LA.15/14-3SA ; In Press*

Developing a method for estimating AADT on all Louisiana roads.

Xiaoduan Sun, **Subasish Das**   *Report No. FHWA/LA.13/508 ; Apr, 2014*

A Comprehensive Study on Pavement Edge Line Implementation.

Xiaoduan Sun, **Subasish Das**   *Report No. FHWA/LA.12/506; Oct, 2013*

Developing Crash Modification Factor for Louisiana.

Xiaoduan Sun, **Subasish Das**   *Report No. FHWA/LA.11/487; May, 2011*

Safety Improvement from Edge Lines on Rural Two-Lane Highways.

Peer-Reviewed Conference Proceedings

Transportation Research Board 94th Annual Meeting   JAN. 11-15, 2015, WASHINGTON DC

Four Poster Presentations

1. Factor Association using Multiple Correspondence Analysis in Vehicle-pedestrian Crashes, 2. Zero-Inflated Models for Different Severity Types in Rural Two-Lane Crashes, 3. Lane Conversion for Urban Roadway: An Unideal but Effective Way to Improve Roadway, 4. Determining the Knowledge Gap in Performance Based Analysis of Geometric Design and Condition Incorporating Safety.

SASHTO 2014 Annual Conference   AUG. 23-27, 2014, NEW ORLEANS, LA

Outstanding Graduate Student Poster Presentation

Analyzing At-fault Crash-Prone Drivers of Louisiana associated with Multiple Crashes

55th Annual Transportation Research Forum   MAR. 13-15, 2014, SAN JOSE, CA

One Lectern Session

Sentiment Analysis of the Riders of the Bike Sharing Programs

One Poster Presentation

Association Rules Mining on the Ridership Data of a Bike Sharing Program

Transportation Research Board 93rd Annual Meeting   JAN. 12-16, 2014, WASHINGTON DC

Three Poster Presentations

1. Investigating the Pattern of Traffic Crashes Under Rainy Weather by Data Mining, 2. Exploring Clusters of Contributing Factors for Single-Vehicle Fatal Crashes Through MCA, 3. Investigating Safety Impact of Edge Line on Narrow Rural Two-Lane Highways by EB Method.

Transportation Research Board 92nd Annual Meeting   JAN. 13-17, 2013, WASHINGTON DC

Three Poster Presentations

1. Analyzing Crash-Prone Drivers in Multiple Crashes, 2. Investigating the Safety Impact of Raised Pavement Markers, 3. Crash Modification Factor for an Inexpensive yet Very Cost Effective Safety Improvement: Converting 4U to 5T.

Synergistic Activities

Member : ITE, Phi Kappa Phi Honor Society, ASCE.

Reviewer: ICCTIM2014, TRB ANB20 (Highway Safety Performance), Cogent Engineering.

Conference Attendance: SASHTO 2014 Annual Conference (*New Orleans, LA*), Gulf Region ITS Spring 2014 Regional Workshop (*Lafayette, LA; 2014*), Transportation Research Forum Annual Meeting (*San Jose, CA; 2014*), Transportation Research Board (TRB) Annual Meeting (*Washington DC; 2011, 2012, 2013, 2014, 2015*), Louisiana Transportation Conference (*Baton Rouge, LA; 2011, 2013*), Gulf Region ITS Annual Meeting (*New Orleans, LA, 2013*), Southern District ITE Annual Meeting (*Lafayette, LA; 2011*).