

Brianna P. Lawton
Doctoral Candidate, Civil Engineering
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OBJECTIVE

Seeking to leverage my research, technical skills, and academic experience in civil engineering for an internship or research opportunity in transportation engineering related to intelligent transportation systems and transportation planning, safety, and modeling.

EDUCATION

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| Iowa State University (ISU), Ames, IA | Spring 2020 |
| ▪ Doctoral Candidate, 3.88 GPA, Civil Engineering | |
| Morgan State University (MSU), Baltimore, MD | Spring 2017 |
| ▪ Bachelor of Science in Civil Engineering (Magna Cum Laude) | |

PROFESSIONAL EXPERIENCE

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| Graduate Exchange Student, Rome, Italy | Summer 2018 |
| ▪ Studied Global Perspectives in Transportation Systems, Safety, & Infrastructure | |
| ▪ Met with the Director of the Italy Traffic Management Center to discuss different countermeasures used to mitigate traffic | |
| ▪ Researched and wrote a paper on intersection safety and design of U.S. and Italy's transportation infrastructure. | |

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| Graduate Research Assistant, Institute of Transportation, ISU | Fall 2017 –Present |
| ▪ Conducted a Systemic Safety Analysis of Boone County, Iowa, that identified crucial crash intersections to implement safety counter measures. Presented results to the Boone County Board of Directors, which they took as recommendation to improve safety of suggested areas described. | |
| ▪ Utilized ArcGIS software for spatial analysis to locate and display suitable sites for a future manufacturing company based on client specifications. | |

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| Transportation Engineering Intern, HDR Inc., Vienna, VA | Summer 2016, 2017 |
| ▪ Prepared design files for the RFP by outlining the movement of traffic and construction staging, updated the amount of environmental mitigation required, and evaluated the safety of roadway by inserting guardrails where necessary for the I-95 Express Lanes Fredericksburg Extension. | |
| ▪ Performed a documented literature review with the use of Smart Scale for HDR's potential RFP for the Soapstone Connector/Dulles Toll Road Overpass Project. | |
| ▪ Navigated MicroStation and ProjectWise in modeling conceptual designs and measuring quantities for the I-95 Express Lanes Project. | |
| ▪ Researched and developed a NASA Transportation Management Plan for the Goddard and Wallops Flight Space Centers to reduce traffic and pollution. | |

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| Undergraduate Researcher, Department of Civil Engineering, MSU | Summer 2016 –Spring 2017 |
| ▪ Created a life cycle cost analysis framework for the Standard vs Modified Proctor Compaction Methods to design the most sustainable roadway; presented results at the Engineering Sustainability Conference in Pittsburgh, PA. | |
| ▪ Published and presented a research paper on defining the mandatory incorporation of research in the undergraduate curriculum at the Mid-Atlantic ASEE Conference in Baltimore, Maryland. | |

COMTO CITY Intern, First Transit, Capitol Heights, MD**Summer 2015**

- Developed Standard Operating Procedures for the dispatch call center to control scheduling of bus operators, which reduced on-road trip travel times while saving fuel which reduced cost for idle time.
- Created an online repository for management that improved their original Incident Report Form that organized types of incidents and facilitated improved tracking and prioritization of incidents for management to reference.
- Researched and reported incident occurrences to improve safety procedures for vehicle operators and define incident causation.

SKILLS/RELEVANT COURSEWORK

- Transportation Network and Travel Demand Modeling: PTV Visum
- Programming/Statistical Software: R/R Studio, Python
- Interactive Data Visualization: Tableau
- Signal Timing and Analysis Software: Synchro
- Mapping: ArcMap/ArcGIS, GeoPlanner
- Drafting Software: Microstation, AutoCAD, ProjectWise
- Web Development: Weebly, Wix
- Microsoft: Word, Excel
- Proficient in Social Media Marketing: Facebook, Instagram, Twitter

Coursework:

- Urban Transportation Planning and Modeling
- Traffic Engineering
- Sustainable Horizontal Infrastructure
- Pavement Design
- Transportation Models and Simulations

HONORS/AWARDS

- Tau Beta Pi Engineering Honor Society
- Chi Epsilon Civil Engineering Honor Society
- Jacobs Engineering Scholarship
- Nicole Washington Scholarship, Women's Transportation Seminar (WTS)

Fall 2016 –Present
Spring 2016 –Present
Summer 2016, 2018
Spring 2016

PROFESSIONAL MEMBERSHIP/EXTRACURRICULAR

- Transportation Student Association (TSA) Vice President
- National Society of Black Engineers (NSBE) graduate chapter member
- Society of Women Engineers (SWE) graduate chapter member
- Conference of Minority Transportation Officials (COMTO) MD chapter member
- President and Founder of the NSBE HCC Chapter

Spring 2018 –Present
Fall 2018 –Present
Fall 2017 –Present
Summer 2015-Present
Spring 2014 – 2015