

AGUSTIN GUERRA

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PROFESSIONAL SUMMARY

Highly motivated engineering professional with **5+** years of experience in the transportation industry and **+4** years of research experience in traffic engineering. Committed to providing high-quality service focusing on innovation, safety, sustainability, operational performance, diversity, equity, and inclusion. Currently conducting research about optimization of traffic operations considering connected and automated vehicles (CAVs).

EDUCATION

PhD Candidate in Civil Engineering <i>University of Florida</i>	Aug. 2019 – Expected May 2023 <i>Gainesville, FL</i>
MS in Civil Engineering <i>University of Kansas</i>	Aug. 2017 – May 2019 <i>Lawrence, KS</i>
BS in Civil Engineering <i>Universidad Tecnologica de Panama</i>	Mar. 2008 – May 2013 <i>Panama, PA</i>

TECHNICAL SKILLS

Expertise: Transportation Engineering, Statistical Analysis, Operation Research, Machine Learning
Programming and Statistical Languages: Python (+3 years), R (1 year)
Software: MS Office, SPSS
Developer Tools: Github, Visual Studio Code
Scientific Python Libraries: Pandas, NumPy, Matplotlib, CPLEX, sci-kit learn, TensorFlow, Selenium, webdrivermanager, xml

EXPERIENCE

Graduate Research Assistant <i>University of Florida</i>	Aug. 2019 – Present <i>Gainesville, FL</i>
<ul style="list-style-type: none">Develop optimization algorithms in Python for arterials considering CAVs capabilitiesAssist in the implementation of optimization algorithm for isolated intersectionsFacilitate the coordination of projects' activities to meet deadlinesFormulated different optimization models to reduce intersections' delays (LP, IP, MILP)Developed heuristic methods to reduce delays in arterials (search-based algorithms)Developed a Python-based data pipeline to extract CAVs trajectories from connected vehiclesWorked on data preprocessing, and data imputationEvaluated machine learning algorithms to estimate the occurrence of future crashes	
Highway & Traffic Consultant <i>WSP</i>	May 2019 – Aug. 2019 <i>Panama</i>
<ul style="list-style-type: none">Provided safety assessment for roadways, interchanges, and intersectionsDeveloped geometric design proposals	
Highway Engineer <i>Louis Berger</i>	Nov. 2012 – Aug. 2017 <i>Panama</i>
<ul style="list-style-type: none">Led the development of highway design projects. Project portfolio comprises several projects in the Latin American region (Panama, Colombia, Honduras, and Peru) adding up to \$3 billion in construction amountCoordinated with different departments (geotechnical, hydraulic, and pavement) to meet deadlinesFacilitated the establishment of a new business unit in Bogota, ColombiaLed and mentored a design team of 4 people	

LEADERSHIP/INVOLVEMENT

Founding Member and Chair of the IEEE-ITSS Student Chapter: Led the efforts to establish an IEEE Student Chapter branch of the ITSS at the University of Florida	2022 – Present
ITE University Chapter Vice President: Coordinated student seminars and ITE activities	2021 – 2022
Student Representative at the UFTI Internal Steering Committee: Promoted engagement activities between industry professionals and students	2020 – 2022
Media Manager at KU Fulbright Student Association: Led dissemination of activities promoted by the Fulbright Student Board, 2018	2018 – 2019

FELLOWSHIPS & AWARDS

ITS Florida Anne Brewer Academic Scholarships: Awarded by the <u>ITS</u> Florida Chapter	2022
Fulbright Fellowship: Awarded by the U.S Bureau of Educational and Cultural Affairs	2017
Global Best Project: Awarded by the <u>ENR</u> for the Coastal Beltway project in Panama	2015

PROFESSIONAL SOCIETIES

<u>IEEE</u> : Institute of Electrical and Electronics Engineers	2022 – Present
<u>IEEE-ITSS</u> : IEEE Intelligent Transportation Systems Society	2022 – Present
<u>ASCE</u> : American Society of Civil Engineers	2022 – Present
<u>ITE</u> : Institute of Transportation Engineers	2019 – Present

REFERENCES

Lily Elefteriadou, PhD: Barbara Goldsby Professor, University of Florida	elefter@ce.ufl.edu
Aurora Izquierdo: Civil Structural Engineer II, WSP	Aurora.Izquierdo@wsp.com
Juliana Canas: Senior Advisor, First Climate	juliana.canas-vanegas@firstclimate.com
Julio Aysa: Env./Social and Governance Lead Officer, IDB	jaysa71@yahoo.com.mx