

# Agustin Guerra

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## PROFESSIONAL PROFILE

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Highly motivated engineering professional with 5+ years of experience in the transportation industry. Committed to providing high-quality service focusing on innovation, safety, sustainability, operational performance, diversity, equity, and inclusion. Currently seeking internship opportunities in Transportation Engineering.

## EDUCATION

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

## TECHNICAL SKILLS

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**Expertise:** Transportation Engineering, Statistical Analysis, Operation Research, Machine Learning  
**Languages:** Python, R  
**Softwares:** AutoCAD Civil 3D, Infracore, Slide-Rockscience  
**Developer Tools:** Github, Visual Studio  
**Libraries:** Pandas, NumPy, Matplotlib, CPLEX

## EXPERIENCE

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<b>Graduate Research Assistant</b> <i>University of Florida</i>	Aug. 2019 – Present <i>Gainesville, FL</i>
<ul style="list-style-type: none"><li>• Develops optimization algorithms for corridors considering automated-vehicles capabilities</li><li>• Assists on the implementation of optimization algorithm for isolated intersections</li><li>• Assists in the coordination of projects activities to meet deadlines</li><li>• Teaching Assistant for TTE 6267: Traffic Flow Theory</li></ul>	
<b>Highway &amp; Traffic Consultant</b> <i>WSP</i>	May 2019 – Aug. 2019 <i>Panama</i>
<ul style="list-style-type: none"><li>• Provided safety assessment for roadways, interchanges, and intersections</li><li>• Developed geometric design proposals</li><li>• Conducted earthwork estimation for highway projects</li></ul>	
<b>Highway Engineer</b> <i>Louis Berger</i>	Nov. 2012 – Aug. 2017 <i>Panama</i>
<ul style="list-style-type: none"><li>• Developed geometric designs for proposal and as-built drawings for highway projects. Project portfolio comprises several projects in the Latin American region (Panama, Colombia, Honduras, and Peru) adding up to \$3 billion in construction amount</li><li>• Coordinated with different departments (geotechnical, hydraulic, and pavement) to meet deadlines</li><li>• Developed digital model terrain for highway projects</li><li>• Assisted with slope stability analysis</li><li>• Supervised and trained drafter team (4 people)</li></ul>	

## AWARDS & SERVICE

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**ITE Student Chapter VP:** Coordinated student seminars and ITE activities

**Student Representative at the Internal Steering Committee at UFTI:** Promoted engagement activities between industry professionals and students

**Fulbright Fellowship:** Awarded by the U.S Bureau of Educational and Cultural Affairs to complete a Master's Degree at the University of Kansas

**Global Best Project in Roads and Highways:** Awarded by the [ENR](#) for the Coastal Beltway project in Panama

## RELEVANT PROJECTS

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<b>4th Bridge over the Panama Canal</b>   <i>Panama</i>	2019
<ul style="list-style-type: none"><li>• Provided visibility and safety assessment for intersections and roadways</li><li>• Developed geometric design alternatives for interchanges</li><li>• Construction cost: \$1.2 billions</li></ul>	
<b>Corredor Panama Norte</b>   <i>Panama</i>	2016
<ul style="list-style-type: none"><li>• Played a major role in the coordination of the project</li><li>• Developed design drawings and calculations including 3D models of roadways, roundabouts, and interchanges</li><li>• Provided earthworks estimation</li></ul>	
<b>Perimetral Oriental de Bogota</b>   <i>Colombia</i>	2015
<ul style="list-style-type: none"><li>• Coordinated with other departments (geotechnical, hydraulic, surveying) to meet deadlines</li><li>• Developed design drawings and calculations including 3D models of roadways, intersections, and interchanges</li><li>• Trained and supervised drafter team</li><li>• Construction cost: \$428.0 millions</li></ul>	
<b>Panamerican Highway Widening Santiago -Vigui</b>   <i>Panama</i>	2014
<ul style="list-style-type: none"><li>• Provided design alternatives including 3D models and drawings for intersections</li><li>• Assisted with the slope stability analysis by modeling 2D models of critical sections</li><li>• Construction cost: \$340.0 millions</li></ul>	
<b>Corredor Turistico La Barca – El Progreso – Tela</b>   <i>Honduras</i>	2014
<ul style="list-style-type: none"><li>• Provided design drawings for roundabouts and urban sections including sidewalks, and bus-stops</li><li>• Assisted with the traffic signs drawings using the MUTCD and local guidelines</li><li>• Construction cost: \$120.0 millions</li></ul>	
<b>Slope Stabilization Studies 53 km</b>   <i>Panama</i>	2014
<ul style="list-style-type: none"><li>• Assisted with the slope stability analysis</li><li>• Assisted with the study of ground improvement alternatives</li><li>• Construction cost: \$0.4 millions</li></ul>	
<b>Amador Causeway Widening</b>   <i>Panama</i>	2014
<ul style="list-style-type: none"><li>• Assisted with the geometric design of roundabouts</li><li>• Participated in the creation of the digital terrain model</li><li>• Assisted with the modeling of critical sections for embankments stability analysis</li><li>• Construction cost: \$95.0 millions</li></ul>	
<b>Coastal Beltway</b>   <i>Panama</i>	2012
<ul style="list-style-type: none"><li>• Developed design drawings for roadways including roundabouts, marine viaducts, and interchanges</li><li>• Construction cost: \$ 45 millions</li></ul>	

## REFERENCES

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