

Agustin Guerra

888-858-6716 | agustinguerra@ufl.edu | [LinkedIn](#) | [Portfolio](#) | [GitHub](#)

PROFESSIONAL PROFILE

Highly motivated civil engineer with more than 5 years of experience in the transportation industry (highway design projects). Currently seeking internship opportunities

EDUCATION

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

TECHNICAL SKILLS

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

EXPERIENCE

Graduate Research & Teaching Assistant <i>University of Florida</i>	Aug. 2019 – Present <i>Gainesville, FL</i>
<ul style="list-style-type: none">Developed optimization algorithms for corridors considering automated-vehicles capabilitiesAssisted on the testing of optimization algorithm for isolated intersectionsAssisted on promoting the outreach of the University of Florida Transportation Institute (UFTI)Student Representative at the Internal Steering Committee at UFTIITE Student Chapter vice-presidentTA for TTE 6267: Traffic Flow Theory	
Highway & Traffic Consultant <i>WSP</i>	May 2019 – Aug. 2019 <i>Panama</i>
<ul style="list-style-type: none">Provided safety assessment for interchanges, on-ramps, off-ramps, and roundaboutsDeveloped geometric design proposalsConducted earthwork estimation for highway projects	
Highway Engineer <i>Louis Berger</i>	July 2014 – Aug. 2017 <i>Panama</i>
<ul style="list-style-type: none">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 amountCoordinated with different departments (geotechnical, hydraulic, and pavement) to achieve deadlinesDeveloped digital model terrain (DTM) for highway projectsAssisted with slope stability analysisSupervised drafter team (4 people)	

PROJECTS

4th Bridge over the Panama Canal <i>Panama</i>	May 2019 – Aug. 2019
<ul style="list-style-type: none">A cable-stayed bridge across the Panama Canal, 450 m span with two interchanges on both ends and a clearance of 80 mConstruction amount \$1.2 billions	
Portobelo - Maria Chiquita Highway (Proposal) <i>Panama</i>	May 2019 – Aug. 2019
<ul style="list-style-type: none">Rural multi-lane highways in a mountainous terrain about 33 km lengthThe proposal included two main interchanges	

- Corredor Panama Norte** | *Panama* Jan. 2016 – June 2017
- Widening from Two to Four-lane highway of 9.42 km length including five interchanges, medium terrain
 - Design included sidewalks, and bike path along the corridor
 - This projects considered as principal constraints a 1 m diameter pipe below the existent alignment
 - Construction amount: \$95.0 millions
- Corredor Perimetral Oriente de Cundinamarca** | *Colombia* Jan. 2015 – Dec. 2015
- Included 45 km of new alignments and 73.9 km of rehabilitation in a mountainous terrain, rural 2-lanes highway
 - The design included sidewalks, bike paths, 6 roundabouts, and 2 interchanges
 - Construction amount: \$428.0 millions
- Line One of the Panama Metro** | *Panama* Nov. 2014 – Dec. 2014
- Around 1 km of reconstruction of a urban arterial, level terrain
 - The design included sidewalks and bus-stop bays
 - It included the adequation of U-turns and reshaping from 3 to 2 lanes per direction to alleviate traffic and provide more surface for pedestrians
- Corredor Panamerican Highway Section Santiago -Vigui** | *Panama* Jan. 2014 – Dec. 2014
- Widening from two to four-lane highway of 70 km length including several intersection on rural setting
 - The design includes sidewalks, along the corridor in urban areas. Level to moderate terrain
 - Construction amount: \$340.0 millions
- Corredor Turistico La Barca – El Progreso – Tela** | *Honduras* July 2014 – Aug. 2014
- Widening from two to four-lane highway of 105 km length including 3 roundabouts in urban settings
 - The design includes sidewalks, along the corridor in urban setting
 - Construction amount: \$120.0 millions
- Slope Stabilization Studies 53 km** | *Panama* Feb. 2014 – Apr. 2014
- Slope characterization, and stability analysis of the Madden-Colon corridor
 - Alternatives such as soil nailing, reshaping and drainage improvement were proposed
 - For embankments solutions as Mechanically Stabilized Earth (MSE) walls were proposed
 - Construction amount: \$0.4 millions
- Hydroelectric Project Chan II (Proposal)** | *Panama* Jan. 2014 – Nov. 2014
- The project located on mountainous terrain required several access roads to allow the construction
 - Construction amount: \$1000.0 millions
- Amador Widening** | *Panama* Jan. 2014 – Feb. 2014
- Marine embankment of 3.3 km length on level terrain, including 5 roundabouts to improve mobility
 - The project included children's park and ground improvements technics such as densification, replacement, geotextile inclusion, mechanic stabilization, MSE walls
 - Construction amount: \$95.0 millions
- Coastal Beltway** | *Panama* Nov. 2012 – Apr. 2013
- Eliptical roundabout and multiple level intechanges at both end of a marine viaduct
 - This project was elected on 2015 as the Global Best Project in Roads and Highways by the [ENR](#)
 - The design included sidewalks, and bike path along the corridor
 - Viaduct of 3 km above sea water, surrounding the Panama's old-town
 - Construction amount: \$ 45 millions

AWARDS

Fulbright Fellowship: Awarded by the U.S embassy in Panama to complete a Master's Degree at the University of Kansas

REFERENCES

Lily Elefteriadou PhD: Barbara Goldsby Professor, Director of the UFTI

Gabriel Borrás: Country Manager WSP Panama.

Sofia Berger:Senior Vice President, Advisory Services WSP.

elefter@ce.ufl.edu

gabriel.borras@wsp.com

sofia.berger@wsp.com