

Agustin Guerra

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PROFESSIONAL PROFILE

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 Civil Engineering, Data Analysis, and Operation Research

EDUCATION

University of Florida

PhD candidate in Civil Engineering

Gainesville, FL

Aug. 2019 – Expected May 2023

University of Kansas

MS in Civil Engineering

Lawrence, KS

Aug. 2017 – May 2019

Universidad Tecnologica de Panama

BS in Civil Engineering

Panama, PA

Mar. 2008 – May 2013

TECHNICAL SKILLS

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

Graduate Research Assistant

University of Florida

Aug. 2019 – Present

Gainesville, FL

- Develops optimization algorithms for corridors considering automated-vehicles capabilities
- Assists on the implementation of optimization algorithm for isolated intersections
- Assists in the coordination of projects activities to meet deadlines
- Teaching Assistant for TTE 6267: Traffic Flow Theory

Highway & Traffic Consultant

WSP

May 2019 – Aug. 2019

Panama

- Provided safety assessment for roadways, interchanges, and intersections
- Developed geometric design proposals
- Conducted earthwork estimation for highway projects

Highway Engineer

Louis Berger

Nov. 2012 – Aug. 2017

Panama

- 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
- Coordinated with different departments (geotechnical, hydraulic, and pavement) to meet deadlines
- Developed digital model terrain for highway projects
- Assisted with slope stability analysis
- Supervised and trained drafter team (4 people)

RELEVANT PROJECTS

4th Bridge over the Panama Canal | *Panama*

2019

- Provided visibility and safety assessment for intersections and roadways
- Developed geometric design alternatives for interchanges
- Construction cost: \$1.2 billions

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

AWARDS & SERVICE

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

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

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Julio Aysa: Env./Social and Governance Lead Officer, IDB

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