# **Agustin Guerra**

### Civil Engineer

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agustingu.github.io



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/in/agustin-guerra-h



agustingu

## Technical Skills —

#### Overview



#### **Software & Programming Skills**

 $\begin{tabular}{lll} Beginner & & & & & & & & & \\ AutoCAD C3D & VISSIM & Transmodeler \\ Python & R & & & & & & & & & \\ ETEX & Infraworks & & & & & \\ GEOPACK & & & & & & & & \\ Slide Rocksience & & & & & \\ \end{tabular}$ 

## Education -

#### PhD., Civil Engineering

Specialization: Highway & Traffic

University of Florida

2019 - 2023 (Expected) | Florida, U.S.A

**MSc., Civil Engineering** (GPA: 3.83) Specialization: Highway & Traffic

University of Kansas

2017 - 2019 | Kansas, U.S.A

**BEng., Civil Engineering** (GPA: 3.30) Universidad Teconologica de Panama 2008 - 2013 | Panama, Panama

## **Experience**

# Aug 2019 - **Graduate Research Assistant** Present

• Focused on developing optimization algorithms for urban corridors considering Automated Vehicles capabilities.

- Helped with the deployment of traffic control algorithms for realworld implementation.
- Presented several talks, and posters related to optimization algorithms for Automated Vehicles.
- · Assists in coordination for project deliverables.
- Teaching: TA for TTE 6267: Traffic Flow Theory.
- Leadership: Student representative at the Internal Steering Committee (ISC) at UFTI. Co-chair for the task force studentprofessional engagement.
- Projects: AVIAN.
- **Tools**: Python, numpy, pandas, AMPL, CPLEX, VISSIM, Jupyter Lab, Github, R.

# May 2019 - **Highway & Traffic Consultant** Aug 2019

WSP

- Provide safety assessments of geometric design, traffic studies, and develop geometric design proposals in the LAC region.
- Projects: 4<sup>th</sup> Bridge over the Panama Canal, Maria Chiquita Portobelo Corridor.
- Projects' Summary: With an estimate \$99.8 million the Four bridge over the Panama Canal is one of the latest and ambitious projects in Panama, it includes two main interchanges on both ends connecting the Pan-American Highway with the main transit terminal in the city.
- Tools: AutoCAD Civil 3D, Infraworks.

#### Jul 2014 - Highway Engineer Aug 2017

Louis Berger

- Coordination and geometric design for highway projects in the LAC region (Honduras, Panama, Colombia, Peru).
  - Projects: Corredor Turistico La Barca El Progreso Tela, Panamerican Highway (Santiago -Vigui), 1<sup>st</sup> Metro line in Panama, Corredor Perimetral Oriente de Cundinamarca, Corredor Panama Norte.
  - Projects' Summary: The cumulative construction amount for all of the projects was about \$1.05 U.S billions, including 7 interchanges, 6 roundabouts and 2 intersections.
  - Tools: AutoCAD Civil 3D.

### Jun 2014 - Specialist Assistant

Louis Berger

- Nov 2012
  Assisting with geometric design, traffic signalization, slope stability analysis, DTM development.
  - Projects: Slope Stabilization Studies 53 km, Hydroelectric Project Chan II, Amador Road Widening, MSE walls Design of Via Expresa Sur Interchanges, Cinta Costera III Marine Access.
  - **Projects' Summary**: The cumulative construction amount for the prjects was about \$1.3 U.S billions.
  - Tools: Slide-Rockscience, AutoCAD Civil 3D, Mathcad.

## Research

May 2018 - MSc. Candidate

University of Kansas

May 2019 **Thesis**: Modeling discretionary lane changing decisions for connected vehicles based on fuzzy logic.

- Proposed a fuzzy logic model to asses driving behavior during discretionary lane change under a connected environment.
- Perform data processing and statistical analysis.
- Tools: SPSS, MiniSim, Driving Simulator.

UFTI

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## Technical Skills —

#### **Overview**



#### **Software & Programming Skills**

 $Beginner \longrightarrow Advance$ 

AutoCAD C3D • VISSIM • Transmodeler

Python • R • LETEX • Infraworks

GEOPACK • HCS • Slide Rocksience

## Education -

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### **Publications**

To be added.

### References

Aug 2019 - Lily, Elefteriadou PhD

Present **Director of the UF Transportation Institute** 

• Work Phone: (352) 294 7802

• Email: elefter@ce.ufl.edu

Nov 2012 - **Gabriel, Borras**May 2017 **Country Manager** 

• Cell Phone: +507 6619-5580

• Email: gabriel.borras@wsp.com

Nov 2014 - **Sofia, Berger** 

May 2017 Division Manager for the Latin American and Caribbean division

University of Florida

**WSP** Panama

WSP LAC

• Email: sofia.berger@wsp.com