

## **Shile Zhang**

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### **CAREER SUMMARY**

Two years of working experience from multiple funded projects, involving traffic safety under Connected Automated Vehicle (CAV) environment, data analytics, statistical analysis, and IoT device development.

Fluent in programming languages such as Python, and traffic software such as ArcGIS.

Dedicated and self-motivated professional, work cooperatively with others.

Strong verbal and written communication skills.

### **EDUCATIONS**

#### **University of Central Florida**

*Orlando, FL, U.S.*

Ph.D. in Civil Engineering (Transportation)

*Aug 2018-May 2021(expected)*

Graduates Certificate, SAS Data Mining

*Aug 2018-Sep 2020*

Master of Science in Civil Engineering (Smart Cities)

*Aug 2018-Apr 2020*

#### **Southeast University**

*Nanjing, China*

Bachelor of Science in Traffic Engineering

*Aug 2012-Jun 2016*

### **SKILL AND SOFTWARE**

Programming

Python, MATLAB, C++, SQL

Traffic software

AutoCAD, TransCAD, NADS MiniSim, ArcGIS

Statistical software

R, SAS

Other software

Microsoft Office, Latex

### **ORGANIZATIONS**

UCF Smart and Safe Transportation Lab

*Member*

Institute of Transportation Engineers (ITE) at UCF

*Executive Board*

Woman in Transportation (Central Florida Chapter)

*Member*

### **JOURNAL ARTICLES**

**Zhang, S.**, Abdel-Aty, M., Yuan, J., & Li, P. (2020). Prediction of Pedestrian Crossing Intentions at Intersections Based on Long Short-Term Memory Recurrent Neural Network. Transportation Research Record. <https://doi.org/10.1177/0361198120912422>.

Wu, Y., Abdel-Aty, M., Zheng, O., Cai, Q., **Zhang, S.**, (2020). Automated Safety Diagnosis Based on Unmanned Aerial Vehicle Video and Deep Learning Algorithm. Transportation Research Record. <https://doi.org/10.1177/0361198120925808>.

**Zhang, S.**, Abdel-Aty, M., Cai, Q., Li, P., Ugan, J., 2020. Prediction of pedestrian-vehicle conflicts at signalized intersections based on long short-term memory neural network. Accident Analysis & Prevention. <https://doi.org/10.1016/j.aap.2020.105799>.

**Zhang, S., Abdel-Aty, M., Wu, Y., Zheng, O., 2020. Modeling pedestrians' near-accident events at signalized intersections using gated recurrent unit (GRU). Accident Analysis & Prevention 148, 105844.**

## **RESEARCH EXPERIENCES**

### **Using Smartphone as On Board Unit (OBU) Emulator Implementation Study**

*Florida Department of Transportation*

*Oct 2018 – Sep 2019*

*Task: Using a smartphone application and machine learning to send warning to drivers.*

### **Connecting the East Orlando Communities Project (Phase I, Smart Garage)**

*Federal Highway Administration (FHWA) ATCMTD*

*Aug 2019 – Aug 2020*

*Task: Using Raspberry Pi to identify empty parking spots and backing vehicles in the garage.*

### **Improving Vulnerable Road Users' Safety Based on Computer-Vision Technologies (Phase I)**

*Florida Department of Transportation*

*Aug 2020 – Aug 2021*

*Task: Predicting pedestrians' red-light crossing behaviors and safety conditions using CCTV videos.*

## **HONORS AND AWARDS**

### **ORC Doctoral Fellowship (stipend: \$25,000)**

*Aug 2018*

*University of Central Florida*

### **Solving for Safety Visualization Challenge (team award)**

*Nov 2019*

*U.S. Department of Transportation*

### **UCF Graduate Presentation Fellowship**

*Jan 2020*

*University of Central Florida*

## **CERTIFICATIONS AND LICENSES**

### **Coursera**

Getting Started with AWS Machine Learning

*Jun 2020*

<https://www.coursera.org/account/accomplishments/certificate/V9SA78DBNJ29>

### **Florida Board of Professional Engineers**

Engineer [Intern]

*Oct 2020*

<https://account.ncees.org/rn/2057425-1334109-c629ac6>

### **Coursera**

Computer Vision Basics

*Oct 2020*

<https://www.coursera.org/account/accomplishments/certificate/9QUHWSP55J23>