

# Mahmoud Pourmehrab

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## EDUCATION BACKGROUND

<b>Doctor of Philosophy, <i>Transportation Planning and Engineering</i>, (GPA 4.00)</b> University of Florida	Aug 2015 – Apr 2019
<b>Master of Science, <i>Industrial and System Engineering</i>, (GPA 3.94)</b> University of Florida	Aug 2015 – Aug 2017
<b>Master of Science, <i>Transportation Planning and Engineering</i>,</b> Sharif University of Technology	Aug 2012 – Aug 2014
<b>Bachelor of Science, <i>Civil Engineering</i>,</b> Sharif University of Technology	Aug 2008 – Aug 2012

## EXPERIENCE

### Research Assistant

<b>Traffic Signal Control with Connected and Autonomous Vehicles in the Traffic Stream</b> (at the University of Florida, <i>National Science Foundation Funded under grant 1446813</i> )	Aug 2015 – Aug 2017
<ul style="list-style-type: none"><li>- Defining the problem of Signal Phase and Timing (SPaT) under high demand of automated and conventional vehicles.</li><li>- Modeling/Solving an Optimization Model to operate an Intersection at the least delay.</li><li>- Designing and implementing the algorithm to solve the problem in Python.</li><li>- Cooperating with a multidisciplinary group of experts from computer science and mechanical engineering.</li><li>- Analyzing, and visualizing the collected data.</li><li>- Writing official manuscripts including deliverables, reports, and several research papers in a well-organized manner.</li></ul>	

<b>Development and testing of Intelligent Intersection Control System</b> (at the University of Florida, <i>Florida Department of Transportation Funded BDV31-977-45</i> )	Aug 2015 – Aug 2016
<ul style="list-style-type: none"><li>- Defining the problem of Vehicle Trajectory Optimization low demand of automated and conventional vehicles.</li><li>- Modeling/Solving an Optimization Model to minimize travel time delay of an individual vehicle.</li><li>- Simulating/verifying the intersection performance in Matlab and VISSIM.</li><li>- Acquiring a variety of skills including modeling problems, designing algorithms, implementing programs, version controlling, statistical analysis, data visualization, and presenting outcomes all in a punctual fashion that met the project's needs.</li></ul>	

### Institute of Transportation Engineers Student Chapter

ITE Officer – Event Coordinator	May 2017 – May 2018
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<b>Congestion Pricing Models to Reduce Traffic Externalities in an Urban Networks</b> (at Sharif University of Technology)	Aug 2012 – Aug 2015
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## SKILLS

<b>General:</b>	Problem Solving, Critical/Algorithmic Thinking, Team Work
<b>Programming:</b>	Python, MATLAB, GitHub version control
<b>Data Analysis and Visualization:</b>	Pandas, Matplotlib, Seaborn, LaTeX TikZ, R, Tableau, SPSS
<b>Optimization:</b>	CPLEX API, GAMS, Scipy, Mathematica, LINGO
<b>Experience</b>	Mathematical Modeling, User Equilibrium/System Optimal in Urban Networks, Data-driven modelling, Machine/Statistical Learning Models, Data Visualization

- REFERENCES:

Lily Elefteriadou

***Relation: (chief supervisor, professor)***

Designation: Professor

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Yafeng Yin

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Siva Srinivasan

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