

Mahmoud Pourmehrab

Curriculum Vitae (Update: September 16, 2019)

PERSONAL DETAILS

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Webpage <https://pourmehrab.github.io/home/>

EDUCATION

Ph.D. in Civil Engineering - Transportation Engineering/Planning 2015-2019

University of Florida Transportation Institute (UFTI), Department of Civil Engineering, Florida, USA

Focus: Operations Research Methods to Optimize Transportation Systems
Dissertation: Optimizing Signalized Intersections Performance under Conventional and Automated Vehicles Traffic
Doctoral Advisor: Lily Elefteriadou

M.Sc. in Industrial and Systems Engineering 2015-2018

University of Florida, Department of Industrial and Systems Engineering, Florida, USA

Focus: Operations Research

M.Sc. in Civil Engineering - Transportation 2012-2014

Sharif University of Technology, Department of Civil Engineering, Tehran, Iran

Focus: Network Optimization Algorithms
Thesis: Application of Pareto-improving Congestion Pricing in Transportation Network
Advisor: Hedayat Zokaie Aashtiani

B.Sc. in Civil Engineering 2008-2012

Sharif University of Technology, Department of Civil Engineering, Tehran, Iran

PROFESSIONAL EXPERIENCES

Senior Operations Research Analyst (Full-time) 2019-Present

Innovative Scheduling LLC. (OPTYM), Florida, USA

Operations Research Analyst (Intern) 2018-2019

Innovative Scheduling LLC. (OPTYM), Florida, USA

Focus: Designed, developed, implemented, tested optimization algorithms in the area of airline industry.

Research Associate 2015-2019

University of Florida Transportation Institute (UFTI), Florida, USA

Lead Research Associate on two projects:

- National Science Foundation (NSF) Grant: Traffic Signal Control with Connected and Autonomous Vehicles in the Traffic Stream, Award ID 1446813, (Total award: \$1.3 Million) <http://avian.essie.ufl.edu>
- Florida Department of Transportation (FDOT) Grant: Development and Testing of Optimized Autonomous and Connected Vehicle Trajectories at Intersections, BDV31-977, (Total award: \$400K)

SKILLS

<i>Languages</i>	English, Persian
<i>Programming</i>	C#, Python, MATLAB
<i>Analytics</i>	Python, R, Mathematica, IBM SPSS
<i>Optimization</i>	Xpress/Knitro, CPLEX, GAMS/NEOS Server
<i>Data</i>	SQL, MongoDB, Pandas
<i>Visualization</i>	L ^A T _E X TikZ, Tableau, Matplotlib, Seaborn

PUBLICATIONS

- **Pourmehrab, M.**, Elefteriadou, L., Ranka, S., Martin-Gasulla, M., 2019. Optimizing Signalized Intersections Performance Under Conventional and Automated Vehicles Traffic. IEEE Trans. Intell. Transp. Syst. 1–10. <https://doi.org/10.1109/TITS.2019.2921025>
- **Pourmehrab, M.**, Elefteriadou, L., Ranka, S., 2018. Smart intersection control algorithms for automated vehicles, in: 2017 10th International Conference on Contemporary Computing, IC3 2017. pp. 1–6. <https://doi.org/10.1109/IC3.2017.8284361>
- Li, Z., **Pourmehrab, M.**, Elefteriadou, L., Ranka, S., 2018. Intersection Control Optimization for Automated Vehicles Using Genetic Algorithm. J. Transp. Eng. Part A Syst. 144, 4018074. <https://doi.org/10.1061/JTEPBS.0000197>
- Emami, P., **Pourmehrab, M.**, Martin-Gasulla, M., Ranka, S., Elefteriadou, L., 2018. A Comparison of Intelligent Signalized Intersection Controllers Under Mixed Traffic, in: 2018 21st International Conference on Intelligent Transportation Systems (ITSC). IEEE, pp. 341–348. <https://doi.org/10.1109/ITSC.2018.8569939>
- Elefteriadou, L., **Pourmehrab, M.**, Emami, P., Omidvar, A., Letter, C., Neal, P., Kiriazis, R., Ranka, S., Crane, C., Ridgeway, S., 2017. Development and Testing of Optimized Autonomous and Connected Vehicle Trajectories at Signalized Intersections.
- Omidvar, A., **Pourmehrab, M.**, Emami, P., Kiriazis, R., Esposito, J.C., Letter, C., Elefteriadou, L., Crane, C.D., Ranka, S., 2018. Deployment and Testing of Optimized Autonomous and Connected Vehicle Trajectories at a Closed-Course Signalized Intersection. Transp. Res. Rec. J. Transp. Res. Board 2672, 45–54. <https://doi.org/10.1177/0361198118782798>

AWARDS & HONORS

Graduate Research Assistantship Funding, University of Florida

2015-2019

REFERENCES

Ravindra Ahuja, PhD
Lily Elefteriadou, PhD
Yafeng Yin, PhD

CEO and Founder of OPTYM
Director of UF Transpo. Institute, University of Florida
Dept. of Civil Engineering, University of Michigan