# TINA RADVAND

+1 (217) 417-3226
radvand2@illinois.edu

205 N Mathews Ave,
Room B106,
Urbana, IL 61801

## RESEARCH INTERESTS

Quantum Computing
Traffic Flow Theory
Algorithms
Network Optimization
CAVs
Air Mobility

## LANGUAGE SKILLS

**Persian:** Native
**English:** Fluent
**Arabis:** Basic

## RELEVANT COURSES

Algorithms
Quantum Complexity
Quantum Computing
Intro to Optimization
Operations Research
Integer Programming
Logistic Systems
Analysis of Network
Public Transportation
Risk Management
Road Project
Traffic Engineering
Engineering Economy

## EDUCATION

**Ph.D. Student in Transportation Engineering — 01/2022–Present**
University of Illinois at Urbana-Champaign, Illinois, USA
Advisor: Prof. Alireza Talebpour
GPA: 3.96 via 43 passed credits

**B.Sc. in Civil Engineering — 09/2016–02/2021**
Sharif University of Technology, Tehran, Iran
GPA: 18.15/20 via 153 passed credits

## PRESENTATIONS AND PUBLICATIONS

**Dynamics of Traffic Jam Formation and Dissipation**
In-Preparation
Submitted to the TRB 104th Annual Meeting, January 2025

**Coexistence in Motion: Unveiling the Behavioral Dynamics of Human and Highly Automated Vehicles in Naturalistic Mixed Traffic**
In-Preparation
Submitted to the TRB 104th Annual Meeting, January 2025

**Optimizing Electric Vehicles Charging Station Locations: Exploring Grover's Search Algorithm**
In-Preparation
presented at the INFORMS Annual Meeting, October, 2023

**A Quantum Annealing Approach to Discretized Traffic Assignment Problem**
Submitted to the IEEE transaction on Quantum Engineering
Presented at the TRB 103rd Annual Meeting, January, 2023

**Unmanned Aerial Vehicle Routing: A Quantum Computing Approach**
Presented at the TSL Conference, July, 2023

**Man vs. Machine: A Closer Look at the Differences Between Human Driver Behavior and Automated Vehicle Decision-Making**
Presented at the TRB 103rd Annual Meeting, January, 2024

**Introduction to the Third Generation Simulation (TGSIM) Dataset: Data Collection and Trajectory Extraction**
Published in Transportation Research Record, July 2024

**Examining the Demographic and Behavioral Patterns of Young Drivers Issued Traffic Violations in Iran: An Empirical Study**
Undergraduate Thesis Study, February, 2021

## HONORS AND AWARDS

**Graduate Student Representative**
Institute of Transportation Engineers at UIUC — Student Chapter—2024

**Member of Chi Epsilon, the National Civil Engineering Honor Society**
USA—2024

**Recognized as Special Talented Student**
Sharif University of Technology—2020

**Educational Award of the Second Student Recognition Ceremony**
Civil Engineering Department, Sharif University of Technology—2017

**National Silver Medal, 11th Iranian Astronomy and Astrophysics Olympiad**
Iran —2015

**Member of National Elite Foundation**
Iran—2015

**Selected for study in schools of National Organization for Development of Exceptional Talents (NODET)**
Tehran—2012

## COMPUTER SKILLS

**Quantum Computing with D-Wave and IBM Systems:** OCEAN and Qiskit
**Python Programming:** NumPy, Pandas, and NetworkX
**Statistical Analysis:** R and STATA
**Hydraulic Modeling:** WaterGEMS, SewerGEMS, and EPANET
**Design:** AutoCAD, Civil 3D

## TEACHING EXPERIENCE

**Teaching Assistant, Soil Mechanics Lab**
Sharif University of Technology, Fall 2019-Fall 2020

**Teaching Assistant, Fundamentals of Programming with Python**
Sharif University of Technology, Fall 2017

**Teaching Astrophysics and Celestial Mechanics**
Farzanegan 3 Highschool, Summer 2016