ALI BEHROOZI

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Birthdate: October 23, 1997 – ☐ Phone: +98 9030310665
Address: Tehran, Iran – ☑ GitHub: github.com/alibehroozi43

EDUCATION

K.N.Toosi University of Technology (World university rankings 2023: 1001 – 1200th)

M.Sc. in Transportation Engineering

• *M.Sc. Thesis*: Analyzing and Predicting Bike-Sharing Demand Using Machine Learning Methods

• Supervisor: Dr. Ali Edrisi

• Cumulative GPA: 18.33/20 (US CGPA: 4/4)

Hormozgan University (HU)

B.Sc. in Civil Engineering

• *B.Sc. Thesis*: Designing steel and concrete structure using ETABS and SAFE

• Supervisor: Dr. Mohammd Taher Kamali

• Cumulative GPA: 14.94/20 - Top 20% in the graduating class

RESEARCH INTERESTS

- Transport network analytics
- · Spatio-temporal travel demand modeling and prediction
- Machine learning techniques (ANN, CNN, GCNN)
- · Route choice prediction and discrete choice modeling
- · Measuring accessibility and evaluating equity

PUBLICATIONS & CONFERENCES

- **A. behroozi** and A. Edrisi, "*Predicting travel demand of bike sharing system using graph convolutional neural network*" (Gate Graph Convolution, Deep learning, Data science), **Public Transport**, Under Review on **July 2023**.
- A.Edrisi, Y.Dehgan, A. behroozi and V.Barzegar, "A comprehensive review of in-vehicle and roadside sensors and their application in traffic management", 8th National Conference on Applied Research in Civil Engineering, Architecture and Urban Management, Tehran, 2021, (https://civilica.com/doc/133195).

HONORS AND AWARDS

- Full Tuition Fee Waiver, from K. N. Toosi University of Technology (2020 2023)
- Straight M.Sc. Admission, from Hormozgan University of Technology (2020)
- Full Tuition Fee Waiver, from Hormozgan University (2016 2020)

CERTIFICATIONS

• Machine Learning Specialization (3 Courses), Certificate link, 2022

RESEARCH EXPERIENCES

Investigating the capabilities of monorail as a mean of transportation and rail quotes in Sep. 2021 – Jan. 2022

Supervisor: Dr. Saeed Monajem

Driving simulators and their application in safety

iii Jan. 2020 – Aug. 2021

Supervisor: Dr. Mansour Hadji

A review study of public transportation systems and their impacts on urban parameters Oct. 2020 – Dec. 2020

Supervisor: Dr. Ali Edrisi

♦ Hormozgan, Iran★ 2016 – 2020

WORK EXPERIENCES

Graduate Student Researcher (Full-Time)	🗰 Feb 2022 – Now
Supervisor: Dr. Ali Edrisi	
Teaching Assistant	🛗 Jan 2023 – Aug 2023
TA for Transportation Systems Analysis, Instructor: Dr. Ali Edrisi	
Teaching Assistant	🛗 Jan 2023 – Aug 2023
TA for Transportation demand, Instructor: Dr. Ali Edrisi	
Teaching Assistant	🗰 Sep 2022 – Jan 2023
TA for Operations Research, Instructor: Dr. Ali Edrisi	
Teaching Assistant	🗰 Sep 2022 – Jan 2023
TA for Road and transportation, Instructor: Dr. Ali Edrisi	
Teaching Assistant	🗰 Sep 2022 – Jan 2023
TA for Construction machinery, Instructor: Dr. Ali Edrisi	
Civil and spatial Analyst (Full-Time)	🗰 Dec 2019 – Dec 2019

SELECTED PROJECTS

LSTM Projects (Github link)

• Predicting daily demand for bike-sharing stations by LSTM – PyTorch

Prediction of traffic flow between bike sharing station (Github link)

• Implementation of parallel multi-layer perceptron –Keras and TensorFlow

TECHNICAL SKILLS

Deep Learning: Python (Pytorch - Tensorflow and Keras - Sklearn - NumPy - Matplotlib) -

Neural Networks (GCNs - CNNs - RNNs)

Programming Languages: Python - Matlab - SQL

Supervisor: Department of Urban Planning, Lar Municipality

GIS: QGIS, ArcGIS, Geopandas, PostGIS

Transport: Visum, Vissim, OpenTripPlanner, Civil3D Statistics: SPSS, STATA, Tableau, Excel, Minitab Tools: Git and Github - Kaggle and Colab, Łatel Mexicology.

RELEVANT COURSES

- M.Sc.: Operation Research (18.5/20 Dr. A. Edrisi) Travel Demand (19.5/20 Dr. A. Edrisi) Transportation System (19.5/20 Dr. A. Edrisi) Transportation Planning (18.75/20 Dr. M. Hosseinlou) Road geometry design (18/20 Dr. S. Monajjem)
- **B.Sc.:** General Mathematics II (19.5/20 Dr. S. Mirzadeh) Computer Programming (18.75/20 Dr. A. Sahragord) Numerical Calculations (18.2/20 Dr. S. Mirzadeh)

LANGUAGE PROFICIENCY

Persian: Native

English: Fluent: TOEFL exam is scheduled for Oct 2023

EXTRACURRICULAR ACTIVITIES

Member of Civil Association, Hormozgan University

Playing Electric Guitar and Acoustic Guitar, In the genre of rock and blues

REFERENCES

Dr. Ali Edrisi

♥ Tehran, Iran

- Associate Professor in K. N.Toosi University of Technology, Transportation Department, Civil Faculty
- E-mail: edrisi@kntu.ac.ir

Dr. Saeed Monajem

Tehran, Iran

- · Associate Professor in K. N.Toosi University of Technology, Transportation Department, Civil Faculty
- E-mail: monajjem@kntu.ac.ir

Dr. Bahman Lahoorpoor

- Postdoctoral Research Associate, University of Sydney
- E-mail: bahman.lahoorpoor@sydney.edu.au

Sydney, Australia