Maede Maftouni

Blacksburg, VA | maftouni@vt.edu | linkedin.com/in/maede-maftouni1991

EDUCATION

Ph.D. in Industrial and Systems Engineering	Aug 2017 – Present
Virginia Tech, *Blacksburg, VA, USA* GPA: 4/4	Expected Graduation: May 2022
M.Sc. in Industrial and Systems Engineering	May 2020
Virginia Tech, *Blacksburg, VA, USA* GPA: 3.97/4	
M.Sc. in Industrial and Management Systems Engineering	May 2015
Amirkabir University of Technology (AUT), Tehran, Iran GPA: 3.91/4	
B.Sc. in Industrial and Management Systems Engineering	May 2013
Amirkabir University of Technology (AUT), Tehran, Iran GPA: 3.82/4	

SKILLS

- Solid knowledge in Data Analytics, Machine Learning, Computer Vision, and Operations Research
- Experience in programming languages: Python (Pandas, PyTorch, TensorFlow), SQL, R, and MATLAB
- Experience in technical software: SPSS, CPLEX, VENSIM, OpenCV, ARENA, and Primavera P6
- Proficiency in Microsoft Excel and VBA programming

SELECTED WORK EXPERIENCE

Graduate Research Assistant, Virginia Tech   Sep. 2018 – Present
- Designed and implemented a robust COVID-19 CT scan classifier, Oct 2020
- Designed and implemented a deep learning structure for laser melt pool video object segmentation, May 2020
- Developed an online machine learning based control of smartphone battery recycling process, Nov 2019
- Designed and implemented an anomaly detection method for multivariate time series sensor data, Dec 2018

Instructor, Virginia Tech   Summer 2019
- Taught engineering economy undergraduate course

Graduate Research Assistant, AUT   Sep. 2014 – May. 2015
- Designed and implemented a type-2 fuzzy expert system for osteomyelitis diagnosis

PUBLICATIONS

- **Maede Maftouni**, M.H. Fazel Zarandi, I.B. Turksen, N. Ayubi Yazdi, "Systematic Bone Infection Detection in Axial Diabetic Foot MRI," in IEEE CIBCB 2015
- **Maede Maftouni**, M.H. Fazel Zarandi, I.B. Turksen, Faeze Roshani, "Type-2 Fuzzy Rule-Based Expert System for Ankylosing Spondylitis Diagnosis," NAFIPS 2015
- Faeze Roshani, M.H. Fazel Zarandi, I.B. Turksen, **Maede Maftouni**, "Fuzzy Expert System for Prognosis of Breast Cancer Recurrence," NAFIPS 2015

AWARDS AND ACHIEVEMENTS

Won the runner-up award in INFORMS QSR **Data Challenge** on "CT Diagnosis for COVID-19"	Oct 2020
Awarded the **Graduate Fellowship** for the Ph.D. program at Virginia Tech	Apr 2017
Membership of "National Exceptional Talented Students" community at AUT	May 2013
Awarded the honorary admission to M.Sc. in Industrial Engineering at AUT	June 2013
Received the top student award based on academic performance for three successive semesters	2011-2012
Ranked 864th (top 0.3%) in nation-wide University Entrance Exam in Mathematics and Physics major	July 2009

PROFESSIONAL TRAINING AND CERTIFICATES

Graduate **Certificate in Data Analytics** at Virginia Tech	May 2020
One-year higher education course entitled **"Project Engineering"** at Tose'eh Institute	Apr 2016
Using Python to Access Web Data - University of Michigan at Coursera.org	May 2016
Machine Learning - Stanford University at Coursera.org	Dec 2015

LEADERSHIP AND ACTIVITIES

Serving as INFORMS student chapter vice president at VT	Aug 2020 - May 2021
Served as the ISE scientific association vice president at AUT	Aug 2010 - May 2011