

Maede Maftouni

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EDUCATION

Ph.D. in Industrial and Systems Engineering <i>Virginia Tech, Blacksburg, VA, USA</i> GPA: 4/4	Aug 2017 – May 2022
M.Sc. in Industrial and Systems Engineering <i>Virginia Tech, Blacksburg, VA, USA</i> GPA: 3.97/4	Aug 2017 – May 2020
M.Sc. in Industrial and Management Systems Engineering <i>Amirkabir University of Technology (AUT), Tehran, Iran</i> GPA: 3.91/4	Sep 2013 – May 2015
B.Sc. in Industrial and Management Systems Engineering <i>Amirkabir University of Technology (AUT), Tehran, Iran</i> GPA: 3.82/4	Sep 2009 – May 2013

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, VENSIM, OpenCV, ARENA, and Primavera P6.
- Proficiency in Microsoft Excel and VBA programming.

SELECTED WORK EXPERIENCE

Graduate Research Assistant, Virginia Tech <ul style="list-style-type: none">• 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.	Sep. 2018 – Present
Instructor, Virginia Tech <ul style="list-style-type: none">• Teaching Engineering Economy Undergraduate Course.	Summer 2019
Graduate Research Assistant, AUT <ul style="list-style-type: none">• Designed and implemented a type-2 fuzzy expert system for osteomyelitis diagnosis.	Sep. 2014 – May. 2015

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

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| • Selected as the INFORMS QSR Data Challenge finalist on “CT Scan 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 |
| • Offered honorary admission to MSc. in Industrial Engineering at AUT. | June 2013 |
| • Top student award based on academic performance and cultural points for three successive semesters. | 2011-2012 |
| • Ranked 864 th (top 0.3%) in nation-wide University Entrance Exam in Mathematics and Physics major. | July 2009 |

PROFESSIONAL TRAINING AND CERTIFICATES

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| • 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

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