

Saeb Ragani

Address:

435 Bell Hall, Buffalo NY, 14260

+1 361-510-0426

saebraga@buffalo.edu

[Linkedin](#) [Github](#) [Portfolio](#)

Objective

*Seeking full time position in
Data Science, Machine Learning
for the Summer of 2021*

Skills

RESEARCH

*Machine Learning, Deep Learning,
Data Mining, Statistical Analysis,
Statistical Process Control,
Signal Processing, Time Series
Analysis, Bio-Mechanics*

LANGUAGES

Python, R, Matlab, Fortran

OS

Linux, Windows

OTHERS

HTML/CSS, JavaScript, Java, MySQL

Education

2016 - PRESENT

PHD, MECHANICAL ENG.

SUNY at Buffalo

Buffalo, NY

2012 - 2014

MSC, MECHANICAL ENG.

Eastern Mediterranean University

Magusa, Turkey

2005 - 2010

BSC, MECHANICAL ENG.

K.N. Toosi University of Tech.

Tehran, Iran

Teaching Experience

DYNAMICS SYSTEMS LAB

2 Semesters at UB Buffalo, NY

THERMODYNAMICS

4 Semesters at UB Buffalo, NY

Experience

2018-NOW **University at Buffalo** Research Assistant at Bio-Mechanics Lab

Project1: Gait Analysis

We developed 2 statistical process control frameworks to detect fatigue from the IMU signals on the ankle. I implemented the algorithms in R.

R, R-Markdown, doParallel

Project2: Activity Recognition

In a project that was funded by GE we tried to predict the activities of electric line workers from the signals collected by wearable sensors. I implemented multiple ML algorithms using the Sklearn and TensorFlow libraries in python.

Python, Scikit-learn, TensorFlow, Jupyter Notebook

Project3: Task Frequency

Using signals from wearable sensors I implemented multiple time series motif discovery methods along with similarity search approaches to count the repetitions in certain tasks.

Python, Jupyter Notebook

2016-2018 **UB Neurosurgery**

Research Assistant at CTRC

Project1: Simulation of Intracranial aneurysm Treatment

We simulated implantation of endovascular stent and coil as well as the post-treatment blood flow using CFD techniques. We also validated the simulations using particle image velocimetry.

StarCCM, Tecplot, Matlab

2014-2016 **Med-X Research Institute, Shanghai**

CFD Engineer

Project1: Effect of Different Imaging Techniques on CFD Simulations

We looked into the effect of 2 coronary imaging techniques (CCTA and ICA) on calculation of fractional flow reserve using computational fluid dynamics techniques.

Fortran, ANSYS Fluent, Tecplot

Other Projects

FALL 2019 **CSE 601**

Clustering & Classification

I implemented 5 clustering & 4 classification algorithms in python without the use of existing libraries.

Python

SPRING 2020 **CSE 574**

Fairness in ML

We optimized the post-processing evaluation methods to improve the fairness in 3 ML models.

Python

Selected Publications ([Google Scholar](#))

ACTIVITY RECOGNITION IN ELECTRIC LINE WORKERS FROM SINGLE WRIST-WORN ACCELEROMETER

IISE Journal (under review)

A PERSONALIZED AND NON-PARAMETRIC FRAMEWORK FOR DETECTING CHANGES IN GAIT CYCLES

Scientific Reports Journal (under review)