

YASAMAN SAADATI

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EDUCATION

Ph.D. in Computer Science

December 2020 - Present

Sustainability, Optimization, and Learning for InterDependent networks laboratory (**solid lab**)

Knight Foundation School of Computing and Information Science

College of Engineering and Computing,

Florida International University

Ph.D. Advisor: **Dr. M. Hadi Amini**

M.Sc. in Artificial Intelligence

August 2015 - May 2018

Computer Engineering Department

Iran University of Science and Technology (ELm-o-sanat)

Master Advisors: Dr. Mahmood Fathy - Dr. Reza Berangi

Master Thesis Topic: "Learning Spatio-Temporal Features for person re-identification in video"

B.Sc. in Computer Engineering

August 2010 - August 2015

Electronic and Computer Engineering Department

Shahid Beheshti University

Thesis Advisor: Dr. Ali Jahanian

Thesis Topic: "Connecting FPGA to ARM microprocessor"

HONORS AND RECOGNITION

1. Awarded **Travel grant** from CRA-WP Grad Cohort Workshop
2. Awarded **Graduate Assistantship** from Knight Foundation School of Computing and Information Science at Florida International University.
3. Ranked **2nd**, class of 2015, Iran University of Technology
4. Ranked **2nd** in the Tebian innovation Competition as a project supervisor

HIGHLIGHTS

- **Teaching Assistant at Florida International University**, (Introduction to Microcomputers, Artificial Intelligence)
- **Serving As a Mentor for UGs at Florida International University**, (1-extracting information from eye tracking dataset, 2-Human activity recognition by applying Federated Learning on Wearable devices (REU))
- **Teaching Assistant at Iran University of Technology**, (Digital Signal Processing and Pattern Recognition)
- **Serving as a research Mentor at Farzanegan Highschool** (preparing students for innovation and research competitions like Khwarizmi and Tebian and programming contests like ACM).
- **Member of Scientific Association in Electronic and Computer Engineering Department**, Shahid Beheshti University

- **placed Top 1%** among Participants in Iranian Graduate and undergraduate University entrance exams
- **ranked 3rd** in Robocup Iran Open 2006 Competition

RESEARCH INTERESTS

- **Federated Learning** (federated deep learning, federated Learning for NLP applications).
- **Machine Learning and Data Mining** (Deep Learning, Applied Machine Learning , Hyper parameter Optimization , Data Analytics).
- **Natural Language Processing** (Sentiment Analysis, text mining, Question Answering).

SELECTED PROJECTS (DURING PHD)

Hyper-parameter Optimization(HPO) (Jan2022-): We applied a modification of Ant Bee Colony(ABC) algorithm for finding the near-optimal Hyper parameters of three well-known regresses (SVR, XGBoost and random forest). and the results illustrate the effectiveness of this evolutionary algorithm on electricity load short-term forecasting task (PJM dataset) by decreasing the searching time and elevating final accuracy.

Eye Movement Project (Jan 2021-Nov 2021): We've Enhanced the Eye Movement Data set Recorded by Northwestern University, in order to improve the visualization and extract the eye movement's proprieties (e.g. fixations and Saccades) for the aim of recognizing the behaviour patterns of good readers via NLP tools with python.

TECHNICAL STRENGTHS

Programming language: . C, C++ , python, Java ...

Machine Learning tool: . Tensorflow, Keras, Torch , scikit-learn , ...

Data Mining and Visualisation Software: . Weka, Elasticsearch , Kibana , Grafana , ...

Database Management Systems: . Microsoft SQL Server, MySQL, POSTGRES , ...

Hardware tool: . Arduino, AVR , ARM , verilog , VHDL , systemC

Other: . Linux, Git, MATLAB, LATEX, Jupyter NoteBook , Spyder , JADE

WORK EXPERIENCE

Florida International University summer 2021 - spring 2022
Graduate Teacher Assistant .

- Conducted Introduction to Microcomputers (Summer and Fall 2021), Artificial Intelligence (Spring 2022)

Florida International University Jan 2021 - now
Graduate Research Assistant .

- Conducting research at the intersection of Federated learning, machine learning and optimization under supervision of Dr. M.Hadi Amini [Solid lab] (Jan 2022- now)
- Conducted research on Enhancing Eye Movement Data sets which are recorded from readers' eye movement, Studying Narrative and Folktale Morphology under supervision of Dr. Mark Finlayson [Cognac lab] (Jan 2021, Nov 2021)

Iran University of science and technology Jan 2016 - Sep 2019
Graduate Research Assistant .

- Developed and optimized Deep learning architectures in vision tasks, conducted research in Local Feature Descriptors under supervision of Dr. Mahmood Fathy, Dr.Reza Berangi (Jan 2016-Sep 2018)

- Conducted research in NLP Semantic Analysis and NER , Enhancing Relation extraction Model(based on BERT) for Farsi language under supervision of Dr. Behrooz Minaei (Jan 2020-Sep 2020)

Amerandish Hoshmand(A leading company in AI, BI and IT projects such as text to speech, search engines, social media analytics in Iran)

July 2017-July 2018

Data Engineer

· **Responsibilities:**

- Crawling text data from web and social media applications.
- text normalization and cleaning for building a comprehensive Persian Language model.
- Develop indexing algorithms for multiple search (Farsi search engine)
- Semantic data analysis with elasticsearch and postgresQL. Data visualization with grafana, kibana.