Mahdi Naser-Moghadasi

CONTACT
INFORMATION

Homepage: LinkedIn Profile
E-mail:
mahdi.nasermoghadasi@gmail.com

EDUCATION

Ph.D in Computer Science,
The Texas Tech University
Computer Science Department, December 2020

- Dissertation Topic: Sentimental Semantic Classification using Decomposed LSTM over Big Data
- Advisor: Professor Yu Zhuang
- GPA : 3.655.

M.Sc. in Computer Science,
The Texas Tech University
Computer Science Department, August 2010

- Thesis Topic: A Recursive Point Based Filter for the Incremental Pruning Algorithm
- Advisor: Professor Larry D.Pyeatt
- GPA : 3.571.

B.Sc. in Computer Engineering,
The Qazvin Azad University
Electrical and Computer Engineering, June 2007

- *Valedictorian Student*, With Honors in Software Engineering
- Thesis Topic : Evaluating Learning Automata in Biped Soccer Robot.
- GPA : 17.72 out 20.

HONORS AND
AWARDS

- Competitive University Scholarship from the University of Texas Tech, 2009 - 2010
- Competitive University Scholarship from the University of Texas Tech, 2008 - 2009
- Valedictorian Student among more than 150 students,Qazvin,IRAN.
- Top Rank Student (1th place), Spring 2004,Qazvin,IRAN.
- Top Rank Student (2th place), Fall 2004,Qazvin,IRAN.
- Selected Top Research Student in Artificial Intelligence and Robotic Systems Nov 2006.
- Selected for the Azad University. Artificial Intelligence (AI) M.Sc. Entrance without the Nationwide exam, 2007.
- Received full travel grant from Azad University to participate several Robocup competitions in 2006, 2007
- Rank 7th among more than 32 teams participated in the international Robocup 2006 Competition, 2006, Germany. The Robocup International competition

PROFESSIONAL
CAREER

USAA,Financial services company , Plano, TX USA.

07/2020 - Present , *Senior/Lead Data Scientist*

- Implemented a semantic search algorithm to find members that complained.
- Developed a question and answer model using ALBERT model to retrieve most relevant information regarding USAA competitors from member's voice.
- Developed an intelligent information retrieval system using sentence Transformer algorithm for data mining on reasons members leaving USAA.

R&D Department of 7-Eleven, Irving, TX USA.

04/2019 - 06/2020 , *Senior Data Scientist*
- Developed and Deployed into production (complete CI/CD pipeline) an NLP web service to present POS tagging, Tokenization, Semantic Similarities services and deep learning through Python libs Flask, Flair.
- Introduce personalization module to the 7Now search engine to improve conversion rate.
- Developed a semantic search engine using Universal Sentence Encoder (Transformer model) for 7-Elven e-commerce website.
- Developed a chatbot for store maintenance service using semantic mining through python libs: ELMO, BERT, Word2Vec, GLOVE.
- Analyzed Amazon market trend and opinion/sentimental mining for over 10000 products using Python libs TextBlob, VADER.

SiriusXM Radio, Irving, TX USA.

01/2017 − 04/2019, *Senior Data Scientist*
- Implemented a matrix factorization recommendation engine using R and resolved the cold start using clustering techniques.
- Performed data cleaning to remove outliers and missing data and built a correlation matrix over listening behavior data using R. Data Size: 18 GB.
- Designed a streaming framework to convert semi-structural data into structural data for business analysis proposes in Cassandra database. Optimized over milliseconds processing.
- Performed data analysis on user listening behavior on SiriusXM APP using R and K-Mean algorithm.
- Analyzed the twitter comments using Topic Modelling and LDA algorithm in R. I visualized data using word cloud. Analysis over 1000 tweets.

Capital One Financial Corporation, Plano, TX USA.

10/2014 − 11/2016, *Senior Software Developer*
- Lead a team to develop a payment reminder data analysis project using decision tree algorithm in R.
- Developed a predictive model to estimate car sale prices in auctions using random forest algorithm and implemented in Apache Mahout and Map/Reduce.
- Developed a topic model / sentimental analysis on twitter comments for Capital One Autoloan using R.
- Developed a predictive payment channel model for customers using decision tree algorithm using RapidMiner.
- Implemented a parallel version of K-Mean algorithm using MPI libraries to boost clustering performance.
- Implemented Site-catalyst and Google analytic to scrutinize and track customer behavior to identify trends and unmet needs and save data in Cassandra.

- Presented a workshop on how to use Machine Learning algorithm using Apache Mahout.
- Worked closely with Capital One Auto Loan business group to

American Airline, Fort Worth, TX USA.

8/2011 – 10/2014, *Software Developer*

- Developed several bid algorithms to the AA pricing group in order to increase revenue.
- Built search interfaces and data feeds using JSP to track flight information.
- Developed several bash scripts in order to perform quantitative analyze on unstructured data of applications to extracted profit sales and benefit analysis.

SpinSci Technologies, LLC, Irving, TX USA.

07/2010 – 08/2011, *Software Developer*

- Developed e-commerce solutions and social networking functionality for a user web portal including its admin utility in JAVAJ2EE., JDBC, Java Serialization, JSP.
- Developed an ETL solution that extracted data from user-call log files and updated the database. MS SQL Server, Java Serialization and File I/O.
- Wrote backend Java bean classes for a log viewer application to get data from database and update session variables. Java Serialization and File I/O.

ACADEMIC
EXPERIENCE
The Texas Tech University, Lubbock, TX USA.

Teacher Assistant

- Introduction to computer architecture. **Summer Semester 2010**.
- Logic for computer science. **Summer Semester 2010**.

Research Assistant

- Researcher in the web mining Lab at the Texas Tech University. Working on the topical web crawlers and search engines and developed an alternate web crawler using the genetic programming. As a second part of my research, I was working on Web 2.0 recommender engine in market based web-pages and architect a MDP recommender system to increase total sales of a virtual firm. **May 2010 to August 2010**
- Researcher in the AI and Robotic Lab at the Texas Tech University. Working on the NAO middle size robot and developing an independent platform application for using the WEBOTS in the conjunction with the MATLAB to generate gait for the robot.**September 2008 to May 2010**

The Qazvin Azad University, Qazvin,IRAN.

Research Assistant

- Researcher in the Mechatronics Research Laboratory (MRL), Qazvin Azad University. Senior team member in the international Robocup competition. Responsible for training junior members and evaluate machine learning algorithms in the soccer robot simulator.**September 2006 to May 2008**

CONFERENCE
PUBLICATIONS

- *Mahdi Naser Moghadasi*, Yu Zhuang, Sent2Vec: A New Sentence Embedding Representation With Sentimental Semantic, to be appeared in IEEE Big Data 2020.

- *Mahdi Naser Moghadasi*, Zohreh Safari, Yu Zhuang, A Sentimental and Semantical Analysis on Facebook Comments to Detect Latent Patterns, to be appeared in IEEE Big Data 2020.

- *Mahdi Naser Moghadasi*, Yu Zhuang, Robo : A Counselor Chatbot for Opioid Addicted Patients, to be appeared in ICNLP 2020.

- H Abu-gellban, L Nguyen, *M Moghadasi*, Z Pan, F Jin, LiveDI: An Anti-theft Model Based on Driving Behavior, Proceedings of the 2020 ACM Workshop on Information Hiding and Multimedia.

- LH Nguyen, Z Pan, O Openiyi, H Abu-gellban, M Moghadasi, F Jin, Self-boosted Time-series Forecasting with Multi-task and Multi-view Learning, arXiv preprint arXiv:1909.08181.

- Eddy C. Borera, Larry D. Pyeatt, Arisoa S. Randrianasolo and *Mahdi Naser-Moghadasi*, POMDP Filter: Pruning POMDP Value Functions with the Kaczmarz Iterative Method, MICAI (1) 2010: 254-265.

- *Mahdi Naser-Moghadasi*, A New Graphical Recursive Pruning Method for the Incremental Pruning Algorithm. MICAI (1) 2010: 232-242.

- *Mahdi Naser-Moghadasi*, A New Pruning Method for Incremental Pruning Algorithm Using a Sweeping Scan-Line through the Belief Space. MICAI (1) 2010: 243-253.

- *Mahdi Naser-Moghadasi* , Abolfazl Toroghi-Haghighat, Saeed Shiry-Ghidary,EVALUATING MARKOV DECISION PROCESS AS A MODEL FOR DECISION MAKING UNDER UNCERTAINTY ENVIRONMENT Proceedings of the Sixth International Conference on Machine Learning and Cybernetics, pp. 2446-2450 ,Hong Kong, 19-22 August 2007.

- Reza Tabein, Alireza Khoshbarforoushha, *Mahdi Naser Moghadasi*. "BROKER-BASED WEB SERVICE SELECTION USING LEARNING AUTOMATA".Proceedings of 5th International Conference on Service Systems and Service Management (IC-SSSM' 08), Melbourne, Australia, June-July 2008. pp. 345-350.

- Mahmood Rahmani, S.Mohammad H.S.Javadi, Ashkan Ferdowsi, *Mahdi Naser-Moghadasi*, Siavash Aslani, Nima Shafii, "MRL3D RoboCup Team Description Paper", Germany, 2006.

JOURNAL

- *Mahdi Naser-Moghadasi*. Evaluating Effects of Two Alternative Filters for the Incremental Pruning Algorithm on Quality of POMDP Exact Solutions. International Journal of Intelligence Science. January 2012.

BOOK

- *Mahdi Naser-Moghadasi*, The Incremental Pruning Filters for POMDPs - Past Present

Future. Available on Amazon, Barnes and Noble and other major book stores.

TECHNICAL SKILLS

- Programming: Proficient in Python, R, C, C++, C Sharp, Java, HTML, JQuery, Batch Script.
- Robotic Simulators and Applications: Webots, RCSServer, NaoQi.
- Development Environments: LaTeX, Microsoft Visual Studio .Net, Netbean, Eclipse, Unified Call Studio.
- Software Testing:Familiar with JUnit , Abbot, Cobertura, FIND-Bugs.
- Application and Web Servers : Tomcat Server, Websphere.
- Operating Systems: Unix/Linux, MS-DOS, Windows 98, 2008, XP,Vista, 7.