Mohammad Mahdi Safari

Junior Data Scientist
Undergrad Student
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Profile

As a student in CE, I have always tried to be curious and open to new techs and concepts, to continue being hardworking and pursue my ideals. I have an interest in a broad subject of computer science in general but there has been a couple of years that I am keen on Artificial Intelligence and to be specific Machine learning and its related algorithms.
Personally, I have problematic-based and systemic thinking behavior and suitable for working in groups and inner leadership characteristics.

Education

B.Sc. in Computer Engineering
Amirkabir University of Technology, *2016 - present*
GPA: 3/4, 15.7/20 (Overall)

Diploma in Mathematics and Physics
National Organization of Development of Exceptional Talents, Tehran, Iran, *2008 - 2016*
GPA: 4/4, 19.17/20 (Overall)

Languages

- Farsi/Persian : Mother-tongue
- English : Fluent (IELTS Points in future)
- French : Beginner (Hobby, My own interest)

Research Interests

- Computer Vision
- Machine Learning
- Statistics
- Algorithms
- Natural Language Processing
- Game Theory and Reinforcement Learning
- Behavioral Economics

Awards & Achievements

- Ranked 137st in the **National University Exam for B.Sc.**, among more than 160k participants,among top 0/001 Aug 2015
- Accepted in National Organization of Development of Exceptional Talents among 10k candidates in district.
- Chief director of Moral Philosophy Association of Computer Engineering department
- Teacher and Advisor of fundamental Lunix LPIC 101,LPIC 102 in Amirkabir University Technology annual Linux fest.

Work Experience

Amirkabir HPC
Position : Junior Data Scientist
Supervisor : Dr.Ahmad Motamedi
Supervisor : Dr.Mahmood Momtazpoor *Jan '21 - Present*

- Creating a dockerized jupyter notebook serverce on web using high-tech enterprise edition Nvidia GPUs.
- Lunching and Managing Elasticsearch and kibana, Cassandra NoSql Database, Scylla NoSql Database, Neo4j Graph Database, Apache Airflow Flow Manager on Docker Swarm on Multiple hosts as cluster.
- ...

Hamgam IT
Position : Junior Data Scientist *Jun '18 - Dec '18*

- Research about the structure of Recommender system and their usage in geographical regions.
- Working on Data anonymization based on k-anonymity and entropy based method.

ParsaSharif Institute
Position : Junior system developer *Oct '17 - Sep '18*

- Customising the style of NextCloud for internal use.
- Building a customize automatic build system based on Jenkins and Docker for Lineageos.
- **Really not relevant to the my interests.**

Academic Projects

BioInformatic HMM
Supervisor : Dr. Hossein Zeinali *Fall '20*

- Identification of the most probable path of genetic mutations in RNA sequences.
- Using Python programming language and Bipython liberary.
- Implementation of basic sequence homogeneouty metrics.
- Implementation of visualization for basic UPGMA, Neighbour Joining, Parsimony for Phylogenetic Trees.

Information Retrieval
Supervisor : Dr. Ahmad Nikabadi *Spring '20*

- Developing a web page for showing a repository or news content and implementing basic IR metrics for accuracy.
- Implementing manually tf-idf for page ranking.
- Implementing a basic Multi-class Classification Model for news
- Implementing precision, recall and confusion matrix & visualize AUC, ROC Charts

Computer Skills

Languages: Python **Familiar**: Golang, SQL, C, JAVA, js(VueJs), Bash
Frameworks&Libraries: Transformers, Tensorflow, Jupyter Notebook, Numpy, scikit-learn, pandas, matplotlib, OpenCV
Web: Flask, Haproxy, Apache HTTP server **Familiar**: Nuxtjs
Databases: MySQL, PostgreSQL, Cassandra, Redis **Familiar**: Elasticsearch
Multicore Processing: OpenMP, CUDA
Linux: Lpic 101, Lpic 102
Cloud: Docker, Kubernetes, Virtualbox

Relevant Courses

- Statistics
- Linear Algebra
- Introduction to Artificial Intelligence
- Data Mining
- Multicore Processing
- Information Retrieval
- Bioinformatics

Online Courses

- Probability Theory and Application
  Dr.Alishahi [sharif ocw]
- Google Machine Learning Course
  Including:
  - Supervised Learning
  - Problem Framing
  - Data Preparation and Feature Engineering
  - Clustering
  - Recommendation Systems
  - Generative adversarial networks(GANs)

Ongoing:

- Linear Algebra
  Gilbret Strang [MIT OpenCourseWare]
- Machine Learning
  Andrew Ng [Coursera]

Books

Ongoing

- Hands-On Machine Learning with Scikit-Learn, Keras, and TensorFlow
  Aurélien Géron
- Discrete and Combinatorial Mathematics An Applied Introduction
  Ralph P.Grimaldi
- Introduction to Linear Algebra
  Gilbert Strang
- A First Course in Probability
  Sheldon m.Ross
- Introduction to Probability and Statistics for Engineers and Scientists
  Sheldon m.Ross
- Probability Statistics for Engineers & Scientists
  Ronald E. Walpole