

Research Interests

- **Software Engineering**

- Big Data
- Application and Web Development
- Distributed Systems & Security
 - Distributed Messaging
 - Distributed Computing

- **IoT**

- **Machine Learning**

- Computer Vision
 - Image Segmentation
- Natural Language Processing
- Recommender Systems

Publications

- Asoodeh, J. (2023). *Persian Book Discovery Enhanced: A BERT-Based Recommender System Focusing on Titles and Headings*. Paper presented at the 7th International Conference on Global Studies in Computer, Electrical, and Mechanical Engineering, Tehran.
- Banaei, M., & Asoodeh, J. (in preparation). *Introduction to Computer Vision with Python and OpenCV*. Unpublished manuscript.
 - Explores image processing with OpenCV and provides a hands-on introduction to machine learning and deep learning, applying these techniques in computer vision.

Education

2013 - 2017
Birjand, South
Khorasan, Iran

B.Sc. in Computer Engineering - University of Birjand
GPA: 3.23/4 – (3.5/4 last two years)
Thesis: “*Introduction to image processing in Python with OpenCV*”
Supervisor: Dr. Mojtaba Banaei

Teaching Experiences

- Fundamentals of Computer and Programming (Feb. – Jun. 2015, *Supervised by professor M. Saberi*)
- An Introduction to Information Retrieval (Feb. – Jun. 2017, *Supervised by professor A. Ghasemi*)

Projects

University of Birjand
Jan.2017 – Oct.2017
Iran, South Khorasan

News, *Supervised by professor M. Saberi*

- Distributed Web Application for managing university news as Bachelor’s final project (Web services have been used in Bozorgmehr University of Qaenat’s News page – *real-time log monitoring, file manager, and news management web services*)

Welfare Organization
Jan.2019 – Dec.2019
Iran, South Khorasan

Evaluation-System

- Distributed Web Application based on workflow system, conducting employee evaluation on a regular basis. The evaluation results are a key consideration for promotions, bonuses and raises. (Reduced costs by **80%** and increased evaluation results accuracy)

Rayan Ayrik
Mar.2020 – APR.2021
Iran, Tehran

SurveyMaker

- Web and Android Application for conducting research or gathering feedback from shared questions to android devices. (State Welfare Organization of Iran has used it. It has been collected a dataset by 20+ android users from more than **13,000 people** in five months to find ones with disabilities to decrease the disability rate in the future - Increased **17%** in collected dataset’s accuracy compared to the last year, 2019)

University of Birjand Jan.2014 – Dec.2016 Iran, South Khorasan	Q-Bank , <i>Supervised by professor M. Saberi</i> • Distributed Web Application to ask and find answers, which are answered by qualified teachers, about a wide range of topics for university students
Bozorgmehr University of Qaenat Oct.2018 Dec.2018 Iran, South Khorasan	Dastik , <i>Supervised by professor M. Saberi</i> • E-Commerce Web Application for buying and selling Dastik's farm products. (Almost 30% increase in the company's sales revenue)
University of Birjand Jan.2017 – Oct.2017 Iran, South Khorasan	Worktime , <i>Supervised by professor M. Banaei</i> • Web Application as a special project in Bachelor for scale team performance including task-recording and real-time chat
University of Birjand Oct.2016 – Jan.2017 Iran, South Khorasan	FlowerRecognition , <i>Supervised by professor M. Banaei</i> A developed machine learning model (with over 85% accuracy) to detect a flower name using image processing and ML classification algorithm, Random Forest Classifier. (Flower-17 dataset)
University of Birjand Jun.2016 – Sept.2016 Iran, South Khorasan	Carpet , <i>Supervised by professor M. Saberi</i> Web Application Service for converting images to the standard design for carpet weaving
University of Birjand Jun.2015 – Dec.2015 Iran, South Khorasan	Smart-House , <i>Supervised by professor F. Karimi</i> • A user-friendly web application to control lighting and doors lock via the internet using Raspberry Pi and microcontroller as Bachelor's internship project

Honors and Awards

2020	Awarded from Director-General of Welfare Organization in South Khorasan for developing an “Evaluation-System” Web Application to evaluate government employees.
2022	Awarded from Vice President of Disability Prevention, State Welfare Organization of Iran, for developing “SurveyMaker” application in order to collect data from disabled people.
2016	Ranked Fourth in ACM algorithmic programming contest in Provincial Competition.

Selected Academic Courses

Software Engineering II: (4/4)	Operating Systems: (4/4)	Data Structure: (4/4)
Database Lab: (4/4)	Computer Graphic: (4/4)	Computer Networks: (4/4)

Experience

Full-Stack Developer Rayan Ayrik JUN.2020 – MAR.2021 Iran, Tehran	<ul style="list-style-type: none"> • Designed, tested, and deployed scalable, and modular web applications • Improved fault detection and troubleshooting with log management
Software Engineer Welfare Organization APR.2018 – MAR.2020 MAR.2022 – OCT.2023 Iran, South Khorasan	<ul style="list-style-type: none"> • Handled programming duties including web design and server maintenance • Collected Genetic data using some developed web services that led to a 50% decrease in costs and improved data collecting speed • Assisted clients with a diagnosis of software and hardware issues
Full-Stack Developer University of Birjand Dec.2016 – Oct.2017 Iran, South Khorasan	<ul style="list-style-type: none"> • Designed, debugged, and developed distributed web services • Led two web development teams of five junior programmers on 3+ project

Web Developer
University of Birjand
Dec.2014 – Dec.2016
Iran, South Khorasan

- Designed Restful API platforms and developed websites based on MVC architecture
- Maintaining, optimizing, troubleshooting, and improving websites

Web Designer
University of Birjand
Jan.2014 – Dec.2014
Iran, South Khorasan

- Designed responsive websites from concept (over 6+ responsive website using HTML5, CSS3, JavaScript, Bootstrap, Materialize)
- Collaborated with other team members to implement new feature developments

Skills

- **Front-End** : HTML, CSS, JavaScript, JQuery, Bootstrap, Materialize, AngularJS
- **Development** : Python, PHP, Android, Java, C/C++
- **Environment** : Linux, Windows
- **Databases** : MySQL, MongoDB, ElasticSearch, Sqlite, SQL Server, Redis, Apache Cassandra
- **Technologies** : Tornado, Pyramid, Laravel, Spring MVC, OpenCV, Git, Apache Kafka, WebRTC, Nginx, Docker, Selenium
- **SDLC** : Agile, Scrum
- Machine Learning, TensorFlow
- Distributed systems, RESTful API, OAuth 2.0, JWT
- Teamwork & Collaboration abilities
- Diligent student and researcher

Certifications and Passed Online Courses

- Machine Learning, *Stanford*
- Android Developer, *Udacity*
- Android Basics, *Udacity*
- Bootstrap, *Otedia*
- WordPress, *Otedia*
- JavaScript, *Otedia*
- Python for Everybody Specialization, *Michigan*
- MongoDB - The Complete Developer's Guide, *Udemy*
- Complete Theme & Plugin WordPress Development, *Udemy*
- PHP & MySQL, *Otedia*
- JQuery, *Otedia*
- HTML & CSS, *Otedia*

Languages

English : TOEFL iBT(111)

Persian: Native

References

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