Behnaz Eslami

Curriculum Vitae

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Profile

Graduated with a master's degree in Information Technology with several published articles in reputable journals and conferences; fluent in English and proficient in technical tools; with more than ten years of work and research experience in Programming, Artifitial Inteligence, Natural Language Processing, Machine Learning, Deep Learning or related research areas.

Education

M.Sc. in Information Technology Engineering *2016 - 2018*

Islamic Azad University Science and Research Branch, Tehran, Iran

GPA: *4.0/4.0*

Thesis Title: *"Text mining method for discovering associations between diseases and drugs based on biomedical documents" (Grade: 18.25/20)*

Supervisor: Dr. Mehdi Habibzadeh Motlagh

B.Sc. in Computer (Hardware) Engineering *2006 - 2010*

Qazvin Islamic Azad University, Qazvin, Iran

GPA: *3.17/4.0* ***(Last Two Years GPA: 3.83/4.0)***

Final Project Title: *"Design and implementation of a device used to estimate the distance between cities by AVR microcontroller" (Grade: 20/20)*

Supervisor: Dr. Hamidreza Rashidy Kanan

Research Interests

- Artifitial Intelligence
- Machine Learning
- Deep Learning
- Natural Language Processing
- Data Analysis
- Information Retrieval
- Image Processing

Publications

Journal Articles:

1. **Behnaz Eslami**, Zahra Rezaei, Mehdi Habibzadeh Motlagh, Majid Fouladian, Hossein Ebrahimpour-Komleh. "Using Deep Learning Methods for Discovering Associations between Drugs and Side Effects Based on Topic Modeling in Social Network." *Soc. Netw. Anal. Min. 10, 33 (2020).* (Link)
2. Zahra Rezaei, Hossein Ebrahimpour-Komleh, **Behnaz Eslami**, Ramyar Chavoshinejad, Mehdi Totonchi. "Adverse Drug Reaction Detection in Social Media by Deep Learning Methods." *Cell J. 2020;22(3):319-324. doi:10.22074/cellj.2020.6615* (Link)
3. **Behnaz Eslami**, Mehdi Habibzadeh Motlagh, Zahra Rezaei, Mohammad Eslami, Mohammad-Amin Amini. "Unsupervised Dynamic Topic Model for Extracting Adverse Drug Reaction from Health Forums". *Applied Computer Science 16, no. 1* (Link)
4. Zahra Rezaei, **Behnaz Eslami**, Mohammad-Amin Amini, Mohammad Eslami. "Event Detection in Twitter by Deep Learning Classification and Multi-Label Clustering Virtual Backbone Formation." *Evolutionary Intelligence. 2022 Mar 22:1-5.* (Link)
5. Soroor Kalantari, Mohammad Soltani, Fardin Samadi Khoshmehr, Mehdi Maghbooli, Zahra Rezaei, Ali Abbasian Ardakani, Soheila Borji, Behzad Memari, Mohammad Bayat, **Behnaz Eslami**, Hamidreza Saligheh Rad. "Differential Diagnosis Among AD, MCI and Normal Aging Employing CBF-Maps Derived from ASL–MRI: An Artificial Intelligence Study." *(**Submited** to RSNA Journal)*

Conference Presentations:

1. Zahra Rezaei, Hossein Ebrahimpour-Komleh, **Behnaz Eslami**. "Event Detection in Twitter Big Data by Virtual Backbone Deep Learning." *In High-Performance Computing and Big Data Analysis, Cham, 2019, pp. 18-31: Springer International Publishing.* (Link)

2. Zahra Rezaei, **Behnaz Eslami**, Mohammad-Amin Amini, Mohammad Eslami. "Hierarchical Three-module Method of Text Classification in Web Big Data." *6th International Conference on Web Research (ICWR), 2020, pp. 58-65* (Link)
3. Zahra Rezaei, **Behnaz Eslami**, Hossein Ebrahimpour-Komleh, Kaveh Daneshmand Jahromi. "Abnormality Detection in Musculoskeletal Radiographs by DenseNet and Inception-V3". *Iran J Radiol. 2019; 16(Special Issue):e99144.* (Link)
4. Mohammad Abbasi, **Behnaz Eslami**, Zahra Rezaei. "Brain Tumor Classification Using Deep Learning Methods." *Iran J Radiol. 2019 ; 16(Special Issue):e99160* (Link)

Book:

1. Zahra Rezaei, **Behnaz Eslami**. "A Method for Plotting Disease Drug Analysis and Its Complications by Combining Sources of Scientific Documents Using Deep Learning Method with Drug Repurposing: Case Study Metformin." *IntechOpen, Drug Development Life Cycle Chapter. September (2022).*

Professional Experience

- **Data Scientist and Web Service Specialist** *2010 - Present*

Implementing, Developing, and Supporting text mining projects:

- Semantic similarity project in textual documents
- Information Technology documents Topic Modeling project
- Intelligent legal systems using 15 intelligent modules

Analyzing data sets inorder to use feature engineering techniques for different projects
Conducting Research about innovative methods in the field of AI and Deep Learning
Implementing, Developing, and Managing Web Services (SOAP and RestFull)

Information Technology Organization of IRAN (Ministry of ICT). Tehran, Iran

- **Data Scientist** *2017 - 2021*
  - Extracting topics from medical papers by using Topic Modelling methods.
  - Identifying the diseases and drugs Named Recognition Entity (NER) among PubMed papers by using BERT model.
  - Drug Repurposing through data integration PubMed Case Study Metformin by using BERT model.
  - Implementing a Q/A system for Qovid-19 through PubMed papers.
  - Studying and using deep learning classification methods such as CNN, HAN, and FastText for classifying any textual documents (All kind of biomedical documents)
  - Implementing a web interface for in-house data analysis pipeline whole-exome sequencing

Royan Institute. Tehran, Iran

- **Instructor** *June 2021*
  - Data Science of Business Course in Post MBA Program (Applied Machine Learning in Practice)

Industrial Management Institute, Tehran, Iran

- **Lecturer**
  - Introduction to Data Science and its Applications *February 2021*

Mazandaran University of Science and Technology, Mazandaran, Iran

  - First International Meeting on Artifitial Intelligence in Medical Imaging *November 2019*

National Brain Mapping Lab, Tehran, Iran

Technical Skills

Linux (CentOS, Ubuntu)		Google Colab	
Python Programming		Java Programming	
Scrapy & Beautiful Soap		Pandas and Numpy	

Scipy & SciKit-Learn		TensorFlow	
Matplotlib, Seaborn, and Plotly		NLTK & Genism	
BERT		Keras	

Language competence

Persian (*Native*), **English** (*Fluent*)

IELTS Academic:

Overall Score: 6.5 *(2022/08/20)*

Selected Courses and Projects

Intelligent Decision Support Systems	*20/20*	Computer Architecture	*20/20*
Supply Chain Management	*20/20*	Digital Marketing	*20/20*
Advanced Engineering Topics in E-Commerce	*19.5/20*	Multimedia Systems	*17.5/20*
Algorithm Design	*16/20*		

Selected Projects:

- Intelligent module to recognize specific phrases including numbers, people, date, specific strings with pattern, and people (Men/Women) with Regular Expression and Named Entity Recognition (NER) techniques in textual documents
- The news classification system of a website containing ten different categories of news
- The bone age detection system
- Differential diagnostic aid system in hepatocellular carcinoma
- ASL MRI in Demantia

Honors and Awards

- Patent entitled “Alzheimer's Disease Imaging Diagnostic System Based on Emission Tensor Imaging (DTI)” - In Inquiry - at the Intellectual Property Center of the State Property Registry
- Reviewr in Journal of “Medical & biological engineering & computing”
  ORCID URL: https://orcid.org/0000-0001-7205-1331

Actitivie and Interests

- Colored pencile drawing and Oil Painting
- Listening to Music
- Playing Tennis

Certifications

- Introduction to Machine Learning in Production, *Deep Learning.AI, Coursera (October 2022)*
- Python Programming Language (Basic and Advanced), *Sematec School - Tehran, Iran (60 hours)*
- Certificate of Presentation, presented a paper titled “Hierarchical Three-module Method of Text Classification in Web Big Data.” *At the 6th International Conference on Web Research, 11 June 2020.*
- Certificate of Presentation, presented a paper titled “Identification and Classification of Adverse Drug Reaction in Social Networks by Using Deep Learning Methods in Text Mining.” *At the 6th Iranian Congress on Electrical and Computer Engineering with an applied perspective on new energies, 2 May 2019. Tehran, Iran.*
- Certificate of Presentation, presented a paper titled “Extracting the Relationship between Disease and Side Effects of Drugs Topic Modeling Approach by Referring to Medical Texts in Social Networks.” *At the 4th National Conference on Technology in Electrical and Computer Engineering, 27 December 2018. Tehran, Iran.*
- Oracle WebLogic Server 12c: Administration I Ed 2, September 2016 - (15 hours) - *Oracle University Training Class, Kuala Lumpur, Malaysia.*
- Oracle Service Bus 12c: System Admin, Design & Integrate Accel Ed 1, September 2016 - (15 hours) - *Oracle University Training Class, Kuala Lumpur, Malaysia.*

References

▪ Mehdi Habibzadeh Motlagh(Link)	*Data Science Instructor, McGill University, Montréal, Québec, Canada*	mehdi.habibzadehmotlagh@mcgill.ca
▪ Zahra Rezaei(Link)	*Data Science Consultant, Iran Telecommunication Research Center* *Department of Electrical Engineering, Islamic Azad University Saveh Branch, Saveh, Iran*	z.rezaei@itrc.ac.ir
▪ Majid Fouladian(Link)	*Adjunct Professor of Electrical and Computer Engineering, Islamic Azad University Science and Research Branch, Tehran, Iran*	majidfouladian@gmail.com