

Amin Hosseiny Marani

+1(646)291-7320 ◊ Bethlehem, PA 18015 ◊ amh418@lehigh.edu ◊  github.com/aminmarani ◊  linkedin.com/in/amin-h-marani

EDUCATION

Lehigh University, Bethlehem, PA

August 2018 - Present

PhD, Computer Science

GPA: 3.63/4

Relevant Coursework: Advanced Programming, Social Computing, Data Mining, Machine Learning, NLP

Iran University of Science and Technology, Tehran, Iran

2011 - 2014

Master of Computer Engineering

GPA: 15.13/20

Relevant Coursework: Machine learning, Distributed AI, Neural Networks, Pattern Recognition

Shahid Chamran University, Ahvaz, Iran

2007 - 2011

Bachelor of Computer Engineering

GPA: 14.53/20 (Top 5%)

PUBLICATION

Amin Hosseiny Marani, Sejal Sarkar, Anjali Devakumar, Jordyn Seybolt, Munmun De Choudhury, and Eric P. S. Baumer. 2023. Taking a Break, or Making a Change? How Analyzing Social Media Non-use Can Help Us Understand Eating Disorder Recovery. *Submitted* to ACM, In Proceedings of the 2023 CHI conference on human factors in computing systems.

Amin Hosseiny Marani, Joshua Levine, and Eric P. S. Baumer. 2022. One Rating to Rule Them All? Evidence of Multidimensionality in Human Assessment of Topic Labeling Quality. In Proceedings of the 31st ACM International Conference on Information and Knowledge Management (CIKM 22), October 17–21, 2022, Atlanta, GA, USA. ACM, New York, NY, USA, 12 pages.

Baumer, E.P.S. and **Hosseiny Marani, A.** (2020). Bias as a Distinct Factor in Human Ratings of Machine Labeling. in Human-Centered Approach to Fair Responsible AI at ACM Conference on Human Factors in Computing Systems (CHI), (Honolulu, HI).

EXPERIENCE

Dana-Farber Cancer Institute | Harvard Medical School

Boston, MA

NLP Data Scientist (internship)

April 2021 - January 2022

- Developed a new clinical text retrieval system using a combination of **database APIs, traditional machine learning methods, and deep learning transformers**.
- Developed an automatic pipeline for clinical Named Entity Recognition and Relation Extraction using a new combinations of text features and **Deep Learning Transformers**.
- Improved NER performance by employing a new loss function and using **PyTorch** library.
- Improved Relation Extraction performance using **Knowledge Graph Neural Networks** and **BioBert**.

DESIGN, ALGORITHMS, AND SOCIETY (DAS) LAB

Lehigh University, Bethlehem, PA

Graduate Research Assistant

2018-present

- Introduced a new **Human-Centered machine learning** Assessment approach for labeling techniques
- Extracted trends and topics of Covid-19 messages across social media and designed a predictive Covid-19 models using **topic modeling, linear regression, and model selection** tools.
- Designed a **CNN** to extract topics and connected to an **LSTM** to translate texts.
- Developed and analyzed a novel topic labeling and frame labeling **human assessment** method.
- Designed a novel **NLP human assessment** method and analyzed the assessment using **statistical analysis**
- Designed a **word embedding** based approach for **topic labeling**.
- Developed a new **interactive topic visualization method with R** to increase readability and stability.
- Improved Retinopathy classification using **CNN** and enhanced Retinal images using **GAN**.

Shahid Chamran University

Ahvaz, Iran

Teacher And Advisor

2015-2017

- **Taught** 5 courses (Advanced Programming and Algorithms) and **advised** 5 undergraduate students.

Complex Systems Lab

Iran University of Science and Technology, Tehran, Iran

Graduate Research Assistant

2010-2013

- Developed a Holonic Multi-Agent **recommender system** using **Map-Reduce** and **Sarl-Java**

- Designed a novel chaotic Boltzmann **neural network** to speed up the convergence.

Mobin Information Technology Research Center

Java Developer

Tehran, Iran

2011-2012

- **Led** the localization of communication component of the **Java** Business Process Management (jBPM)

SKILLS

Programming Languages:	(Proficient)R, Python, Matlab; (Familiar) C#, Java, C, C++
Frameworks and Tools:	Mallet, TensorFlow, PyTorch, Sk-Learn, Map-Reduce, Bert, Transformers

SERVICES AND ACTIVITIES

Reviewer	NeuroComputing Journal
<i>Reviewer of an Elsevier journal in the field of neural networks and machine learning</i>	2017-present
Reviewer	SAGE Open
<i>Reviewer of SAGE Journals in the field of topic modeling and social science</i>	2021-present
Reviewer	ACM CHI
<i>Reviewer of ACM CHI conference in Human-Computer-interaction and NLP applications</i>	2021-present
CSE Department Representative	Lehigh University, Bethlehem, PA
<i>the Graduate Student Senate</i>	2020-present
Member of Upsilon Pi Epsilon society	2021-present
President and Vice of the Iranian Students Association at Lehigh University (LUISA)	2021-present
Secretary of Graduate Student Senate at Lehigh University	2022-present