

Omid Memarrast

Computer Science Department
University of Illinois Chicago
Chicago, IL

[Google Scholar]
[Linkedin] — [Github]
E-mail: memarrast@gmail.com
Cell: +1 (312) 539-5476

SUMMARY

Recent Ph.D. graduate in Machine Learning (ML) with a focus on Responsible AI and a strong background and experience in NLP, Computer Vision, and Generative AI. Published in prestigious conferences including ICML and AAAI, and backed by 2 years of valuable work experience and 2 successful internships.

EDUCATION

- ◇ **Ph.D. in Computer Science** 2023
 - ▷ Computer Science Department, University of Illinois Chicago
 - ▷ [PhD Thesis], GPA: 4/4, Adviser: **Brian Ziebart**
- ◇ **MS.c. in Computer Science** 2021
 - ▷ Computer Science Department, University of Illinois at Chicago
- ◇ **B.Sc. in Software Engineering** 2012
 - ▷ Electrical and Computer Engineering Department, University of Tehran, Iran

RESEARCH INTERESTS

- ◇ Responsible AI, Fair ML, Generative AI, Recommender Systems
- ◇ Distributionally Robust ML, NLP, Computer Vision, Reinforcement Learning

WORKING EXPERIENCES

- ◇ **Machine Learning Research Intern at LinkedIn**, Sunnyvale, CA



Summer 2020

- ▷ **Project: Fairness in a Two-Sided Marketplace**
- ▷ Developed an end-to-end pipeline ensuring fairness for both source and destination members in the ranking system of PYMK (People You May Know).
- ▷ Developed the framework at the scale using Apache Spark (Scala) and Hadoop. R programming language was used for the optimization. Mentor: **Kinjal Basu**
- ▷ keywords: Spark, Hadoop, Scala, R, Optimization, Fairness, Ranking

- ◇ **Data Science Intern at Morningstar Inc**, Chicago, IL



Summer 2018

- ▷ Built a document classification system using LSTM RNN neural networks.
- ▷ keywords: LSTM RNN, GRU, Glove Embedding, AWS, Keras, Scikit-learn, Numpy, Pandas

- ◇ **Software Engineer, Machine Learning at MITRC**, Tehran, Iran 2014 - 2016

- ▷ Built an information extraction system to extract existing relations from text using a bootstrap methodology by augmenting seeds, relations and patterns in the system.
- ▷ keywords: Git, IntelliJIDEA, Maven, Scrum, Agile Methodologies, StanfordNLP, LingPipe, Information Extraction, Spark

TECHNICAL SKILLS

- ◇ Programming & Scripting: **Python**, C/C++, Java, Matlab, R, SQL, Scala
- ◇ Programming Environments: RStudio, Jupyter Notebook, IntelliJIDEA, MySQL
- ◇ Frameworks: JIRA, AWS, A/B Testing, Hadoop, **Spark**, **Git**
- ◇ Libraries: **PyTorch**, Sk-learn, Numpy, Pandas, Matplotlib, **TensorFlow**, **Keras**

PUBLICATIONS

- Superhuman Fairness** [Paper][code] **ICML 2023**
Omid Memarrast, Linh Vu, Brian Ziebart
Also accepted in **ICLR 2023 Workshop: Trustworthy ML** [Paper]

	Fairness for Robust Learning to Rank PAKDD 2023 Omid Memarrast , Ashkan Rezaei, Rizal Fathony, Brian Ziebart [Paper][code] - - [Acceptance rate = 17%] Also accepted in NeurIPS 2021 Workshop: Algorithmic Fairness [Poster]
	Robust Fairness under Covariate Shift AAAI 2021 Ashkan Rezaei, Anqi Liu, Omid Memarrast , Brian Ziebart [Paper][Code] - - [Acceptance rate = 21%] Also accepted in NeurIPS 2020 Workshop: Algorithmic Fairness [Poster]
	Fairness for Robust Log Loss Classification AAAI 2020 Ashkan Rezaei, Rizal Fathony, Omid Memarrast , Brian Ziebart [Paper][code] - - [Acceptance rate = 20%] Also accepted in NeurIPS 2019 Workshop on ML with Guarantees [Poster]
	ParsiNLU: A Suite of Language Understanding Challenges for Persian TACL 2021 [Paper][code], Selected for presentation at EMNLP 2021 with Daniel Khashabi and others. Joint work with researchers from Google, Microsoft, etc.
SELECTED PROJECTS	<ul style="list-style-type: none"> ◊ Using Deep Convolutional Neural Networks to Recognize Museum Artwork Attributes <ul style="list-style-type: none"> ▷ [Report] [Slides] ◊ Using Graphical Models for Inference in a Bayesian Network <ul style="list-style-type: none"> ▷ Graphical models for inference [Code] [Report] ▷ Inference with CRF + CNN using PyTorch [Code] [Report] ◊ Twitter Sentiment Analysis using Machine Learning and Deep Learning Techniques <ul style="list-style-type: none"> ▷ [Code] [Report], Supervised by Prof. Bing Liu
AWARDS & HONORS	<ul style="list-style-type: none"> ◊ Graduate Student Award Scholarship (5000 USD) at U of Illinois at Chicago. 2017 ◊ Offered admission to M.Sc. program in Software Engineering 2012 <ul style="list-style-type: none"> ▷ At University of Tehran as talented undergraduate student.
SERVICES	Reviewer, ICML 2022 Reviewer, NeurIPS 2021 , NeurIPS 2022 , NeurIPS 2023 Program Committee, IJCAI 2021 , IJCAI 2022 Program Committee for the Student Research Workshop (SRW) at: ACL 2019 , ACL 2020 , EACL 2021 & NAACL 2021 Volunteer at AAAI 2020
TEACHING EXPERIENCE	<ul style="list-style-type: none"> ◊ Teaching Assistant: <ul style="list-style-type: none"> ◦ Computer Algorithms I Fall 2022 ◦ Advanced Machine Learning Spring 2022 ◦ Programming Practicum (C & C++) Spring 2017-Spring 2019, Summer 2022 ◦ Advanced Algorithm Design Fall-2014 ◦ Database Systems Fall-2013
REFERENCES	Brian Ziebart, Ph.D. <ul style="list-style-type: none"> ◦ Associate Professor, University of Illinois at Chicago. Email: bziebart@uic.edu Xinhua Zhang, Ph.D. <ul style="list-style-type: none"> ◦ Associate Professor, University of Illinois at Chicago. Email: zhangx@uic.edu Kinjal Basu, Ph.D. <ul style="list-style-type: none"> ◦ Senior Staff Software Engineer, LinkedIn AI. Email: kbasu@linkedin.com