

Sina Mahdipour Saravani

CONTACT	<i>E-mail:</i> sina.mpsaravani@gmail.com & sina@cs.utah.edu <i>Homepage:</i> sinamps.github.io	
INTERESTS	<ul style="list-style-type: none">• Efficient and High-Performance Natural Language Processing and Deep Learning• Natural Language Processing, (Distributed/Multi-GPU) Deep Learning	
EDUCATION	<p>University of Utah, Salt Lake City, United States</p> <ul style="list-style-type: none">• Ph.D., Computer Science 2022 - 2026<ul style="list-style-type: none">◊ In Progress, Cumulative Grade Average: 4.0/4.0 <p>Colorado State University, Fort Collins, United States</p> <ul style="list-style-type: none">• M.S., Computer Science, 2020 - 2022<ul style="list-style-type: none">◊ Cumulative Grade Average: 4.0/4.0◊ Thesis: <i>Redundant Complexity in Deep Learning: An Efficacy Analysis of NeXtVLAD in NLP</i> <p>Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran</p> <ul style="list-style-type: none">• B.Sc., Computer Engineering 2014 - 2019<ul style="list-style-type: none">◊ Cumulative Grade Average: 16.61/20.0◊ Thesis: <i>Implementation of FPGA Accelerators for Convolutional and Pooling Layers of a Convolutional Neural Network (CNN)</i>	
PUBLICATIONS	<p>Google Scholar Link: https://scholar.google.com/citations?user=-32Of8AAAAJ&hl=en</p> <ul style="list-style-type: none">• Sina Mahdipour Saravani, Ritwik Banerjee, and Indrakshi Ray. 2021. An Investigation into the Contribution of Locally Aggregated Descriptors to Figurative Language Identification. In <i>Proceedings of the EMNLP Workshop on Insights from Negative Results in NLP</i>. ACL.• Sina Mahdipour Saravani, Indrajit Ray, and Indrakshi Ray. 2021. Automated Identification of Social Media Bots using Deepfake Text Detection. In <i>Proceedings of the International Conference on Information Systems Security (ICISS)</i>. Springer.• Abhijnan Nath, Sina Mahdipour Saravani, Ibrahim Khebour, Sheikh Mannan, Zihui Li, and Nikhil Krishnaswamy. 2022. A Generalized Method for Automated Multilingual Loanword Detection. In <i>Proceedings of the 29th International Conference on Computational Linguistics</i>, ACL.• Sina Mahdipour Saravani, Sadaf Ghaffari, Yanye Luther, James Folkestad, and Marcia Moraes. 2022. Automated Code Extraction from Discussion Board Text Dataset. In <i>Proceedings of the International Conference on Quantitative Ethnography</i>. Springer. (Best Student Paper Candidate)	
RESEARCH & WORK EXPERIENCES	<ul style="list-style-type: none">• Research Assistant, University of Utah, USA 2022 - 2023<ul style="list-style-type: none">★ Supervisor: Dr. Saday Sadayappan◊ Low-Rank Factorization and Optimizations for Distributed Large Language Models (LLMs)• Research Assistant, Colorado State University, USA 2020 - 2022<ul style="list-style-type: none">★ Supervisors: Dr. Ritwik Banerjee, Dr. Indrakshi Ray, Dr. Nikhil Krishnaswamy◊ Machine Translation for Similar Low-Resource Language Pairs with Loan Words Studied the potential benefits of using loan words, both as a knowledge base and as insights to architecture design, for automated machine translation between similar language pairs.◊ An Investigation into the Contribution of VLAD to Figurative Language Identification Investigated the application and effectiveness of vector of locally aggregated descriptors on top of Transformer layers. Studied sarcasm detection in Twitter as a use case.◊ Deepfake Text Detection for Social Media Bot Identification Implemented Transformer-based models to detect bot-generated text on a deepfake dataset resulting in performance improvements by using domain-specific pre-trained models.◊ Automated Code Extraction from Discussion Board Text Dataset Developed algorithms to extract topic codes from course discussion datasets.• Graduate Assistant, University of Nevada, Las Vegas, USA 2019 - 2020	

	<ul style="list-style-type: none"> ★ <i>Supervisors:</i> Dr. Kazem Taghva ◇ Named Entity Recognition for Persian Implemented a BiLSTM-CRF architecture for Persian NER. 	
	<ul style="list-style-type: none"> ● Research Assistant, Amirkabir University of Technology, Iran 2018 - 2019 ★ <i>Supervisor:</i> Dr. Reza Safabakhsh ◇ FPGA Accelerators for Convolutional and Pooling Layers of a CNN Researched and implemented an FPGA accelerator for the convolutional and max pooling functions of CNNs using High-Level Synthesis. It was deployed on a ZYBO SoC board and achieved up to 30× speedup compared to the equivalent software code on a CPU. 	
	<ul style="list-style-type: none"> ● NLP R&D Intern, CommentMiner, Iran 2017 - 2018 ★ <i>Supervisor:</i> Mr. Ahmad Asadi ◇ NLP Microservices for the Persian Language Implemented text-processing microservices (topic classification, profanity detection, NER, and sentiment analysis) and a question-answering chat bot for the Persian language. 	
TEACHING & MENTORING EXPERIENCES	<ul style="list-style-type: none"> ● Teaching Assistant, Colorado State University Spring 2022 <ul style="list-style-type: none"> ◇ Fault-Tolerant Computing (CS 530) course, Instructor: Dr. Yashwant Malaiya ● Mentor, Colorado State University 2020 - 2021 <ul style="list-style-type: none"> ◇ Mentored 2 graduate, 5 undergraduate and 2 high school students for research in NLP. ◇ Mentored a 1st generation low income underrepresented student for i-STEM Scholars program. ● Temporary Teaching Faculty, University of Nevada, Las Vegas Summer 2020 <ul style="list-style-type: none"> ◇ Computer Science II (CS 202) course ● Teaching Assistant, University of Nevada, Las Vegas Spring 2020 <ul style="list-style-type: none"> ◇ Data Mining (CS 458/658) course, Instructor: Dr. Kazem Taghva ● Teaching Assistant, Amirkabir University of Technology (Tehran Polytechnic) Fall 2018 <ul style="list-style-type: none"> ◇ Embedded & Real-Time Systems course, Instructor: Dr. Hamed Farbeh 	
PROFESSIONAL SERVICES	<ul style="list-style-type: none"> ● Reviewer, LREC-COLING 2023 ● Reviewer, ICQE 2022 ● Reviewer, TheWebConf 2021 & 2022 ● Reviewer, ICDCS 2021 ● Reviewer, ACISP 2021 ● Reviewer, IEEE TPS 2020 & 2021 ● Reviewer, IEEE S&P 2020 ● Industry Relations Officer, Scientific Association and Olympiad Affairs Office of AUT 2015 ● Membership at the Association for Computational Linguistics 2021-2022 	
HONORS & AWARDS	<ul style="list-style-type: none"> ● Entering Ph.D. Student Fellowship, University of Utah 2022 ● Fully-funded Research Assistantship, Colorado State University 2020 ● UNLV Access Grant, University of Nevada, Las Vegas 2020 ● Fully-funded Graduate Assistantship, University of Nevada, Las Vegas 2019 ● Top 50 start-ups in GITEX start-ups competition, UAE (CommentMiner) 2017 ● 3rd place in ElecomStars start-ups competition, Iran (CommentMiner) 2017 ● 1st place grant in Sharif VC Cup start-ups competition, Iran (CommentMiner) 2017 ● Ranked top 0.2% in Nationwide University Entrance Exam in Math. & Physics, Iran 2014 	
RELEVANT SKILLS	<ul style="list-style-type: none"> ● PROGRAMMING: Python, C/C++, Java, C# ● TOOLS AND FRAMEWORKS: PyTorch, Hugging Face Transformers, DeepSpeed, TensorFlow, spaCy, scikit-learn, MALLET, Stanford NLP, polyglot, NLTK, OpenMP, CUDA, Docker ● OTHERS: \LaTeX, Bash, Vivado and Hardware Design Softwares, Basic Web Programming 	