





Navid Madani

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SUMMARY

Currently a PhD student in Computer Science with a focus on Natural Language Processing and Computational Social Science. Former Machine Learning Engineer at Tapsi Co.

Always looking for research opportunities to combine external knowledge with state of the art ML/DL models. Representation learning, [knowledge based] question answering and offline RL are my main areas of focus.

[click here.](#)

WORK EXPERIENCE

Research Assistant - University at Buffalo

Aug 2020 - Now

- Combining logic and language models for question answering
- Contrastive learning for representation learning and building a person-centric language model
- Design and development of exploratory social media stance analysis pipelines
- Research on methods to extract social identity from social media platforms

Machine Learning Engineer - Tapsi Co.

Nov 2017 - Jun 2020

- Technical team lead for research and development of offline reinforcement learning algorithms for real-time pricing of online taxis
- Design and development of EDA, training and inference pipelines for core pricing processes
- Research, design, develop, test and deploy complex modelling and forecasting methods using state-of-the-art machine learning and control systems algorithms

PROJECTS

Some cool projects that I've worked on outside my main research area

Autonomous car racing using reinforcement learning - [F1tenth competition](#) [Link to project](#)

Built a control system for f1tenth racing car using reinforcement learning. Worked on challenges to deploy these models to real world racing cars.

Logic based domain specific question answering

[Private repo](#)

Learning logic through language models for question answering on domain specific tasks with external knowledge or ontologies available.

Multi-hop question answering using reinforcement learning

[Link to project](#)

Building a reinforcement learning agent to travel through knowledge graphs and find the answer to a question.

EDUCATION

2020 - present	PhD (Computer Science) at University at Buffalo	(GPA: 4.0/4.0)
2014 - 2019	Bachelor's Computer Engineering at University of Tehran	(GPA: 3.7/4.0)

PUBLICATIONS

Pathak, Arjunil et al. (Oct. 2021). “A Method to Analyze Multiple Social Identities in Twitter Bios”. In: *Proceedings of the ACM on Human-Computer Interaction* 5.CSCW2, pp. 1–35. DOI: [10.1145/3479502](https://doi.org/10.1145/3479502). URL: <https://doi.org/10.1145/3479502>.

SKILLS

Data Processing	Building efficient data pipelines. Spark, Hadoop, Airflow, Luigi and fluent in writing bash scripts. Familiar with data dashboards such as Zeppelin and tableau
Machine learning and deep learning	Pytorch, Tensorflow, python libs for ML (scikit-learn, pandas, networkx, etc.), visualization in python
Programming	Python, Java, C++, Go