Last Update: 05/2025

# ALI ZEYNALI

azeynali@umass.edu \( \phi \) alizeinali75@gmail.com

In LinkedIn ♦ ★ ali-zeynali.github.io/home/♦ ☑ Github ♦ ∜ G-Scholar

#### **EDUCATION**

PhD of Computer Science, University of Massachusetts Amherst - GPA: 4.0/4.0 2022 - May 2026 (Expected)

MS of Computer Science, University of Massachusetts Amherst - GPA: 4.0/4.0 2019 - 2021

Bachelor of Science in Computer Engineering, Sharif University of Technology 2014 - 2019

## **INTERESTS**

Online learning, Trustworthy machine learning

#### WORK EXPERIENCE

Machine Learning Data Scientist Intern - SiriusXM and Pandora - Oakland, CA

Jun 2024- Aug 2024

- Developed a framework to explain the similarity of a query and a document retrieved by a search ranking model; Designed on collaboration of multiple LLMs.
- Enhanced the performance of previous models up to 26% with the final implementation.
- Skills: NLP, LLM, Attention based Models, Search.

Software Enineering Intern - Google LLC. - Mountain View, CA

Jan 2022- May 2022

- Developed a highly accurate model to address the interest matching points problem.
- Enhanced the performance of previous models up to 50% with the final implementation.
- Skills: Deep Learning, Computer Vision, Image Processing, Tensorflow.

Data Science and Machine Learning Research Intern - Adobe Inc. - San Jose, CA May 2021- Aug 2021

- Enhanced streaming model of Adobe liquid-mode PDF, ensuring seamless performance in offline/online.
- Improved quality of experience and wasted bandwidth both up to 20% with the final model.
- Skills: Prediction Models, Online Decision Making, Data Analysis, Statistics.

Data Scientist Intern - Nullatech (start-up company)

May 2017- Nov 2017

Science Olympiad Tutor and Program Manager - National Young Scholar Club

Jan 2014- Aug 2018

## SKILLS

Deep Learning and LLMs LangChain, PyTorch, Tensorflow, Keras, ONNX

Machine Learning Deep neural networks, Reinforcement learning, Statistical data analysis

Programming Languages Python, Java, C++, C#

Data Analysis Data visualization, Numpy, Pandas, Scikit-learn, SciPy, Gurobi, CVXPY

Development Tools Git, SQL, mySQL, PostgreSQL, Docker

Web Development Django, HTML, CSS

Additional Skills AWS, SageMaker, Jupyter notebook, Object oriented programming, LATEX

## SELECTED PROJECTS

### VSE360: Online 360-degree video streaming simulation evironment

Fully simulated Python environment to evaluate 360-degree video bitrate control algorithms. [Github]

#### AI-Generated music using Deep Learning + LSTM

Generating music using deep learning techniques, and LSTM networks. [Github]

#### AI-Generated short stories using bidirectional LSTM

Generating short/tiny stories with deep LSTM. [Github]

### ZeySed: Deep neural networks for leave classification

Classifying image of leaves using deep neural networks. [Github]

#### HONORS AND AWARDS

Winner of Thesis Defense Fellowship Award University of Massachusetts, Amherst	Fall 2024
Winner of Thesis Proposal Fellowship Award University of Massachusetts, Amherst	Fall 2023
Nominated for the Microsoft Research Fellowship by the CICS Department University of Massachusetts, Amherst	Summer 2021
Winner of Donald F. Towsley Graduate Scholarship and Fellowship Award University of Massachusetts, Amherst	Summer 2021
Rank 7 <sup>th</sup> among 177 B.Sc. students of computer engineering department	Summer 2019
Rank 4 <sup>th</sup> among 1823 teams in 10 <sup>th</sup> IEEEXTREME, 24 <sup>h</sup> programming contest	Fall 2016
Golden Medalist of 8 <sup>th</sup> International Olympiad IOAA in Romania Among more than 200 international students	Summer 2014
Golden Medalist of 9 <sup>th</sup> National Science Olympiad NOAA Among more than 5,000 students	Summer 2013

## SELECTED PUBLICATIONS

- Under review Ali Zeynali, Mahsa Sahebdel, Qingong Liu, Ramesh K. Sitaraman, Mohammad H. Hajiesmaili; Smoothed Online Optimization for Target Tracking: Robust and Learning-Augmented Algorithms;
- Under review Ali Zeynali, Mahsa Sahebdel, Noman Bashir, Ramesh K. Sitaraman, Mohammad H. Hajiesmaili; Near-Optimal Emission-Aware Online Ride Assignment Algorithm for Peak Demand Hours;
- Published Mahsa Sahebdel, Ali Zeynali, Noman Bashir, Prashant Shenoy, Mohammad H. Hajiesmaili; LEAD: Towards Learning-Based Equity-Aware Decarbonization in Ridesharing Platforms; ACM FAccT; 2025
- Published Ali Zeynali, Shahin Kamali, Mohammad H. Hajiesmaili; Robust Learning-Augmented Dictionaries; ICML; 2024
- Published Mahsa Sahebdel, Ali Zeynali, Noman Bashir, Prashant Shenoy, Mohammad H. Hajiesmaili; A Holistic Approach for Equity-aware Carbon Reduction of Ridesharing Platforms; ACM e-Energy; 2024
- Published Ali Zeynali, Mohammad H. Hajiesmaili, Ramesh K. Sitaraman; BOLA360: Near-optimal View and Bitrate Adaptation for 360-degree Video Streaming; ACM Multimedia Systems; 2024
- Published Mahsa Sahebdel, Ali Zeynali, Noman Bashir, Mohammad H. Hajiesmaili, Jimi Oke; Poster: Data-driven Algorithms for Reducing the Carbon Footprint of Ride-sharing Ecosystems; ACM e-Energy; 2023
- Published Xi Chen, Ali Zeynali, Chico Camargo, Fabian Flock, Devin Gaffney, Przemyslaw Grabowicz, Scott Hale, David Jurgens, Mattia Samory; SemEval-2022 Task 8: Multilingual news article similarity; 16th International Workshop on Semantic Evaluation (SemEval); 2022
- Published Lin Yang, Ali Zeynali, Mohammad H. Hajiesmaili, Ramesh K. Sitaraman, Don Towsley; Competitive Algorithms for Online Multidimensional Knapsack Problems; ACM Sigmetrics; 2022

- Published Ali Zeynali, Bo Sun, Mohammad H. Hajiesmaili, Adam Wierman; Data-driven Competitive Algorithms for Online Knapsack and Set Cover; AAAI; 2021
- Published Bo Sun, Ali Zeynali, Tongxin Li, Mohammad H. Hajiesmaili, Adam Wierman, Danny HK Tsang; Competitive Algorithms for the Online Multiple Knapsack Problem with Application to Electric Vehicle Charging; ACM Sigmetrics; 2021