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# ALI ZEYNALI

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## EDUCATION

**MS / PhD of Computer Science**, University of Massachusetts Amherst - GPA: 4.0/4.0 2019 - Present

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

## INTERESTS

Online learning and optimization, Trustworthy machine learning, Responsible AI

## WORK EXPERIENCE

**Software Enineering Intern** - Google LLC. - Mountain View 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 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

| | |
|---|---|
| **Machine Learning** | Deep neural networks, Reinforcement learning, Statistical data analysis |
| **Programming Languages** | Python, Java, C++, C# |
| **Deep Learning** | Tensorflow, Keras, PyTorch, ONNX |
| **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** | Jupyter, Agile software development, 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]

## SELECTED PUBLICATIONS

- **Submitted** ***Ali Zeynali****, Shahin Kamali, Mohammad H. Hajiesmaili; Robust Learning-Augmented Dictionaries*
- **Accepted** ***Ali Zeynali****, Mohammad H. Hajiesmaili, Ramesh K. Sitaraman;* ***BOLA360: Near-optimal View and Bitrate Adaptation for 360-degree Video Streaming****; ACM Multimedia Systems; 2024*

- **Accepted** *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** *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*

## HONORS AND AWARDS

**Thesis Proposal Writing Fellowship Award** Fall 2023
University of Massachusetts, Amherst

**Nominated for the Microsoft Research Fellowship by the CICS Department** Summer 2021
University of Massachusetts, Amherst

**Donald F. Towsley Graduate Scholarship** Summer 2021
University of Massachusetts, Amherst

**Selected in Top-Ten (among 177) B.Sc. students of computer engineering department** Summer 2019

**Ranked $24^{th}$ among 1823 teams in $10^{th}$ IEEEXTREME, $24^h$ programming contest** Fall 2016

**Golden Medalist of $8^{th}$ International Olympiad IOAA in Romania** Summer 2014
Among more than 200 international students

**Golden Medalist of $9^{th}$ National Science Olympiad NOAA** Summer 2013
Among more than 5,000 students

## RELATED COURSES

**Graduate Courses:**
Deep Generative Models, Neural Networks, Database design and implementation, Advanced algorithm, Machine learning, Artificial intelligence, Social and economic networks

**Undergraduate Courses:**
Artificial intelligence, Probability and statistics, Design of algorithms, Database design, Data structure and algorithms

**Online courses:**
Career Essentials in Generative AI (LinkedIn learning)