ALI ZEYNALI

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EDUCATION

Ph.D. Student in Computer Science, University of Massachusetts Amherst 2022- Present
Co-Advisors: Ramesh K. Sitaraman, Mohammad H. Hajiesmaili
GPA: 4.0/4.0

MS Student in Computer Science, University of Massachusetts Amherst 2019- 2022
Co-Advisors: Ramesh K. Sitaraman, Mohammad H. Hajiesmaili
GPA: 4.0/4.0

INTERESTS

Online learning and optimization, Applied machine learning, Responsible AI

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

WORK EXPERIENCE

Software Enineering Intern Jan 2022- May 2022
Google LLC., Mountain View, USA

Developed a highly accurate model to address the interest matching points problem by employing image processing and machine learning techniques, including depth detection, and image perspective detection/modification. Successfully enhanced the performance of SOTA models by up to 50% with the final implementation.

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

Focused on enhancing user experience by optimizing PDF file interactions in liquid-mode, ensuring seamless performance in offline/online streaming. Improved QoE and wasted bandwidth both up to 20% with the final model.

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]

PUBLICATIONS

- **Under Submission** ***Ali Zeynali****, Shahin Kamali, Mohammad H. Hajiesmaili; Robust Learning-Augmented Dictionaries*

- **Under Review** ***Ali Zeynali***, *Mohammad H. Hajiesmaili, Ramesh K. Sitaraman;* ***BOLA360: Near-optimal View and Bitrate Adaptation for 360-degree Video Streaming****; arXiv; 2023*

- **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

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

RELATED COURSES

Graduate Courses:
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)