

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, L ^A T _E X

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 environment
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 University of Massachusetts, Amherst	Fall 2023
Donald F. Towsley Graduate Scholarship University of Massachusetts, Amherst	Summer 2021
Selected in Top-Ten (among 177) B.Sc. students of computer engineering department	Summer 2019
Ranked 24th among 1823 teams in 10th IEEEEXTREME, 24^h programming contest	Fall 2016
Golden Medalist of 8th International Olympiad IOAA in Romania Among more than 200 international students	Summer 2014
Golden Medalist of 9th National Science Olympiad NOAA Among more than 5,000 students	Summer 2013

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)