Mohammadreza Armandpour

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EDUCATION

Ph.D. Statistics, Texas A&M University *August 2016 - May 2022*
Advisors: Mingyuan Zhou (UT Austin), Jianhua Huang (TAMU) Overall GPA: 3.95/4.0
M.S. Applied Mathematics, Sharif University of Technology *2013 - 2015*
Advisor: Kasra Alishahi Overall GPA: 4.0/4.0
B.S. Electrical Engineering & Mathematics, Sharif University of Technology *2008 - 2013*
Double Major Overall GPA: 3.98/4.0
International Mathematical Olympiad (IMO) Team Training *2007 - 2008*
As one of 12 national mathematics gold medalists, I was granted to attend the IMO training camp.
Iran placed 5th worldwide in the IMO that year.

HONORS AND AWARDS

Gold Medal in Iranian National Mathematical Olympiad 2007
The medal is awarded annually to 12 out of 320,000 competing students.

WORK EXPERIENCE

Apple, MIND Team Cupertino, CA
Machine Learning Research Intern *May 2021 - August 2021*

- Designed and implemented a new approach for proper utilization of synthetic data to improve speech recognition. Results submitted for publication to ICASSP 2022.

Tesla, Autopilot Team Palo Alto, CA
Machine Learning Engineer Intern *December 2020 - May 2021*

- Developed an accurate and detailed geometric and semantic understanding of the world using both machine-learned and engineered models.

- Built robust, causal, predictive models for other agents in both geometric and semantic state spaces.

Eli Lilly and Company Indianapolis, IN
Machine Learning Research Intern *May 2019 - August 2019*

- Developed a deep time series forecasting method for prediction of blood glucose in diabetes patients and achieving the state of the art performance. Results and findings published in IJCNN 2021.

Data Analytics Lab, Texas A&M University College Station, TX
Research Assistant *August 2017 - June 2018*

- Designed an efficient algorithm for analyzing large-scale networks data. Results and findings published in AAAI 2019.

Research Assistant, Texas A&M University May 2017 - August 2017
Teaching Assistant, Texas A&M University 2016 - 2021
Course list: Regression Analysis, Linear Models, Theory of Statistics, Distribution Theory, Statistical Methods, Data Mining

PUBLICATIONS AND RESEARCH EXPERIENCES

Accepted:

- Synt++: Utilizing Imperfect Synthetic Data To Improve Speech Recognition, Accepted by **ICASSP 2022**, in Collaboration with **Apple, MIND Team**.

- Deep Spatio-Temporal Wind Power Forecasting, Accepted by **ICASSP 2022**.

- Convex Polytope Trees and Its Application to VAE, Accepted by **NeurIPS 2021**, first author, conference acceptance rate: 26% (2371/9122).

- Partition-Guided GANs, Accepted by **CVPR 2021**, first author, the conference acceptance rate: 23.7% (1661/7015), a collaboration with Chunyuan Li from **Microsoft Research**.

- ChronoR: Rotation Based Temporal Knowledge Graph Embeddings, Accepted by **AAAI 2021**, co-first author, conference acceptance rate: 21% (1,692/7,911).

- Deep Personalized Glucose Level Forecasting Using Attention-based Recurrent Neural Networks, Accepted by **IJCNN 2021**, first author.

- DRUM: End-To-End Differentiable Rule Mining On Knowledge Graphs, Accepted by **NeurIPS 2019**, co-first author, conference acceptance rate: 21.1% (1428/6743).

- Robust Negative Sampling for Network Embedding, Accepted by **AAAI 2019**, first author, conference acceptance rate: 16.2% (1150/7095).

Submitted:

- Gluformer: Personalized Time Series Transformer, submitted to **ICML 2022**.

- Bayesian Graph Contrastive Learning, submitted to **ICML 2022**.

- VAE-Tree: A Hierarchical Generative Framework, co-first author, submitted to **ICML 2022**.

ACADEMIC SERVICE

Conference reviewing: ICLR 2022, NeurIPS 2020-2022, CVPR 2021, ICML 2021-2022, AISTATS 2021.

Journal reviewing: JMLR

Member: American Statistical Association (ASA)   2016 - 2020

RESEARCH INTEREST

Generative Models, Variational Inference, Representation Learning, Speech Processing, Graphs ML, Computer Vision, Time Series Forecasting, Knowledge Graph.

OTHER HONORS AND AWARDS

The Golden Prize at SETCASA   2017
Southeastern Texas Chapter of the American Statistical Association (SETCASA) Poster Session
Ranked 1st in Terms of Cumulative GPA   2015
Among M.Sc. applied mathematics students at Sharif University of Technology
Exempted from the National B.Sc. Entrance Exam   2008
As a gold medalist in the Mathematical Olympiad, the exam had more than 350,000 participants

SKILLS

Language	Native in Persian; Fluent in English
Computer Languages	Fluent in Python, C++, R, Matlab, LATEX, SQL, Spark
Tools	TensorFlow, PyTorch