Anahita Bolourani

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🎓 Education

2024 – Present **University of California, Los Angeles (UCLA)**
Master of Science – Statistics & Data Science
March 2022 – Fall 2025 **UCLA — Samueli School of Engineering**
Doctor of Philosophy – Engineering
2016 – 2019 **University of Tehran, Tehran, Iran**
Master of Science – Engineering
2012 – 2016 **University of Tehran, Tehran, Iran**
Bachelor of Science –Engineering

Publications

Tak, A. N., Bolourani, A., Shank, D. B., & Gratch, J. "Impact of LLM Alignment on Impression Formation in Social Interactions," COLM 2025 (under review), 2025.

Tak, A. N., Banayeeanzade, A., Bolourani, A., Kian, M., Jia, R., & Gratch, J. "Mechanistic Interpretability of Emotion Inference in Large Language Models," *Findings of ACL*, in press, 2025.

Bolourani, A. et al. "Evaluating Procedures for Estimating Vertical Seismic Load Effects Specified in the U.S. Building Code," *ASCE (JSE)*., (under review), 2024.

Bolourani, A. et al. "Structural health monitoring of caissons using support vector machine and principal component analysis," *Structures*, 2021.

Tak, A. N., Bolourani, A. et al. "BIM-based 4D mobile crane simulation and onsite operation management," *Automation in Construction*, 2021.

Bolourani, A., Tak, A. N., Bitaraf, M., & Taghadoss, H. "Developing a BIM–SHM Integrated System for Disaster Risk Management Using Auto-Regressive Model," 2019.

Selected Coursework

Statistics & Data Science:
STATS M231A Pattern Recognition & Machine Learning,
STATS C261 Pattern Recognition & Machine Learning
STATS 200B Theoretical Statistics,
STATS 201A Research Design & Sampling,
STATS 200A Applied probability,
STATS 202A Statistical Programming
STATS C216 Applied Bayesian Social Statistics,

Engineering & Mathematics:
Numerical Computation,
Advanced Engineering Mathematics,
Probability & Statistics for Engineers

Certificates

"Statistical Learning," Stanford Online

Google Data Analytics Professional Certificate (4 courses)

"Neural Networks and Deep Learning," DeepLearning.AI

Research Experience

2022 – Present **Graduate Research Assistant, B. John Garrick Institute for the Risk Sciences, UCLA**
• Investigate vertical seismic load effects using Community Seismic Network and JPL strong-motion data.
• Implement Bayesian and statistical models for synthetic ground-motion generation.
2019 – 2021 **Graduate Research Assistant, TECNOSA R&D Center, University of Tehran**
Developed machine-learning pipelines for structural health monitoring and risk analysis of infrastructure.
2017 – 2019 **Master's Thesis – University of Tehran**
"Numerical Study of Structural Health Monitoring of Caissons via SVM & PCA."

Teaching & Laboratory Experience

2023 – Present **Teaching Assistant, UCLA Samueli School of Engineering** (7quarters)
2017 – 2019 **Teaching Assistant, University of Tehran** (5 Semesters)

Awards & Honors

ASCE Metropolitan Los Angeles *Le Val Lund Memorial Award*, 2024

ASCE Los Angeles Section *Outstanding Graduate Student Scholarship*, 2023 & 2024

UCLA *Summer Mentored Research Fellowship*, 2022

UCLA *Graduate Student Researcher Award*, 2022

Semi-finalist, Mathematics National Olympiad (Iran), 2011

Technical Skills

Languages & Packages: Python (NumPy, SciPy, Pandas, PyTorch, scikit-learn, ObsPy, Selenium, Matplotlib), R, MATLAB, SQL
Machine Learning: Large Language Models (LLM), Diffusion Models, Machine Learning (ML)
Tools: AutoCAD, LaTeX, Git