Kazem Meidani

mmeidani@andrew.cmu.edu https://github.com/mmeidani KazemMeidani

EDUCATION

Carnegie Mellon University *Pittsburgh, PA*
· GPA: 3.93/4.0 *2019 - May 2024 (Expected)*
PhD in Mechanical Engineering
M.Sc. in Mechanical Engineering

Sharif University of Technology *Tehran, Iran*
· GPA: 4.0/4.0 *2014 - 2019*
B.Sc. in Mechanical Engineering
B.Sc. in Industrial Engineering

EXPERIENCE AND PROJECTS

Graduate Research and Teaching Assistant *Aug 2019 - Present*
Carnegie Mellon University *Pittsburgh, PA*
· Research Assistant in Mechanical and Artificial Intelligence Lab (MAIL)
Research interests: Deep Learning Symbolic Mathematics, Deep Learning for Inference and Modeling Physics, and Optimization
· Teacher Assistant for "AI and ML for Engineers"

AI Scientist Intern *May 2022 - Aug 2022*
Electronic Arts *Redwood City, CA*
· Internship in EA AI Lab, Research interest: Machine Learning Frameworks in Sports Games

Undergraduate Research and Teaching Assistant *2014 - 2019*
Sharif University of Technology *Tehran, Iran*
· Research Assistant in MicroNanoSystem Lab (MNSL)
· Teacher Assistant for "Theory of Probabilities", and "Computer Information Systems"

SELECTED PUBLICATIONS

For a complete and up-to-date publication record, see my **google scholar** profile.

· **Kazem Meidani***, P. Shojaee*, C.K. Reddy, A.B. Farimani. (2023). "SNIP: Bridging Mathematical Symbolic and Numeric Realms with Unified Pre-training.", *Submitted to **ICLR 2024***, *Equal Contribution
· **Kazem Meidani***, P. Shojaee*, A.B. Farimani, C.K. Reddy. (2023). "Transformer-based Planning for Symbolic Regression.", *Thirty-seventh Conference on Neural Information Processing Systems (**NeurIPS 2023**)*, *Equal Contribution
· Z. Li, **Kazem Meidani**, AB. Farimani. (2023) "Transformer for Partial Differential Equations' Operator Learning", *Transactions on Machine Learning Research **(TMLR)***
· **Kazem Meidani**, AB. Farimani. (2021). "Data-driven identification of 2D Partial Differential Equations using extracted physical features", *Computer Methods in Applied Mechanics and Engineering (CMAME)*
· **Kazem Meidani**, AB. Farimani. (2023). "IP2: Identification of Parametric Dynamical Systems using Integer Programming", *Expert Systems with Applications*
· Z. Li, **Kazem Meidani**, P. Yadav, AB. Farimani. (2022). "Graph Neural Networks Accelerated Molecular Dynamics", *Journal of Chemical Physics (**JCP**)*

TECHNICAL SKILLS

Programming	Python (fluent), MATLAB, C/C++ (familiar)
ML & Deep Learning	PyTorch (fluent), Tensorflow (familiar), Keras, CVXPY, Scikit-learn, SciPy
Molecular Dynamics	LAMMPS, VMD, OpenMM
Simulation & Design	ANSYS Fluent, COMSOL MultiPhysics, SOLIDWORKS

PROFESSIONAL SERVICES

- Reviewer for Journals of Expert Systems with Applications, Applied Soft Computing, Applied Intelligence, IEEE Access, and PLOS ONE