Kourosh Hakhamaneshi

PhD student, EECS, UC Berkeley

Github Linkedin

Summary

I am a PhD student at Berkeley AI Research working on machine learning, especially in Reinforcement Learning, Unsupervised learning, and their applications in robotics and automated design. I am generally interested in problems where deep learning algorithms can get applied and make breakthroughs.

Education

2017–present **PhD, EECS**, *UC Berkeley*, Advisor(s): Pieter Abbeel, Vladimir Stojanovic.
Machine Learning, Reinforcement Learning, Unsupervised Learning, Robotics, Automated Design and Optimization, Geometric Learning

2017–2019 **Master of Science, EECS**, *UC Berkeley*.

2012–2017 **Bachelor of Science, EE**, *Sharif University of Technology*, Tehran, Iran.
Electronics and Integrated Circuit Design.

Publications

2021 Xiaofei Wang, Kimin Lee, **Kourosh Hakhamaneshi**, Pieter Abbeel, and Michael Laskin. Skill preferences: Learning to extract and execute robotic skills from human feedback. *arXiv preprint arXiv:2108.05382*, 2021.

2021 **Kourosh Hakhamaneshi**, Ruihan Zhao, Albert Zhan, Pieter Abbeel, and Michael Laskin. Hierarchical few-shot imitation with skill transition models. *arXiv preprint arXiv:2107.08981*, 2021.

2021 **Kourosh Hakhamaneshi**, Pieter Abbeel, Vladimir Stojanovic, and Aditya Grover. Jumbo: Scalable multi-task bayesian optimization using offline data. *arXiv preprint arXiv:2106.00942*, 2021.

2020 **Kourosh Hakhamaneshi**, Keertana Settaluri, Pieter Abbeel, and Vladimir Stojanovic. Gacem: Generalized autoregressive cross entropy method for multi-modal black box constraint satisfaction. *arXiv preprint arXiv:2002.07236*, 2020.

2020 Keertana Settaluri, Ameer Haj-Ali, Qijing Huang, **Kourosh Hakhamaneshi**, and Borivoje Nikolic. Autockt: deep reinforcement learning of analog circuit designs. In *2020 Design, Automation & Test in Europe Conference & Exhibition (DATE)*, pages 490–495. IEEE, 2020.

2019 **Kourosh Hakhamaneshi**, Nick Werblun, Pieter Abbeel, and Vladimir Stojanović. Bagnet: Berkeley analog generator with layout optimizer boosted with deep neural networks. In *2019 IEEE/ACM International Conference on Computer-Aided Design (ICCAD)*, pages 1–8. IEEE, 2019.

Work Experience

Summer 2021 **Internship @Intel AI Labs**, *Graduate research intern*, I developed a dataset and benchmark for circuit analysis from a graph learning perspective and developed new architectures of Graph Transformers.

2019-2021 **Internship @Bluecheetah Analog Inc.**, Design Engineer. My duties were developing the custom API for designing circuits; writing, designing and verifying circuit generators and methodologies in BAG (Berkeley Analog Generator), I also did some behavioral system design work as well.

Summer 2016 **R&D Intern @Kavoshcom Asia**, *Tehran, Iran*, I lead the project of building a low Power heart rate monitoring system, that picked up the heart rate signal, transferred the data to a mobile phone using BLE and performed some diagnosis processing on it on a server-based mobile application.

Fellowships & Awards

2020 **Awarded the Qualcomm Innovation Fellowship for our work on using ML for designing AMS circuits**.

2017 **Awarded the EECS department fellowship at UC Berkeley**.

2016 **Awarded for the best B.Sc thesis among all EE department students**, *Sharif University of Technology*, Tehran, Iran.

Computer skills

Frameworks Python, PyTorch, Tensorflow, Docker, Kubernetes

Course Work

ML Deep Unsupervised Learning, Deep Reinforcement Learning, Intro to ML, Computer vision, NLP

Algorithms Efficient Algorithms and Data Structures

Hardware Advanced Analog IC, Advanced Digital IC