

**Third Lecture - Cyber-Physical Systems Distinguished  
Lecture Series (CPS – DLS)**

# Reinforcement Learning: Fundamentals, Algorithms, and Theory



**Yuejie Chi**

Professor

Machine Learning Department and CyLab  
Carnegie Mellon University



Yuejie Chi (SM) received Ph.D. and M.A. in Electrical Engineering from Princeton University in 2012 and 2009, and B.E. (Hon.) in Electrical Engineering from Tsinghua University, Beijing, China, in 2007. After a stint at The Ohio State University from 2012 to 2017, she is with the department of Electrical and Computer Engineering at Carnegie Mellon University since 2018, where she is now a Professor with courtesy appointments in the Machine Learning Department and CyLab. At Carnegie Mellon, she held the inaugural Robert E. Doherty Early Career Development Professorship from 2018 to 2020.

Prof. Chi is the recipient of the IEEE SPS Best Student Paper Award (2012), IEEE SPS Young Author Best Paper Award (2013), Google Faculty Research Award (2013), ORAU Ralph E. Powe Junior Faculty Enhancement Award (2014), AFOSR Young Investigator Program Award (2015), ONR Young Investigator Program Award (2015), NSF CAREER Award (2017), ONR Director of Research Early Career Grant (2019), Presidential Early Career Award for Scientists and Engineers (PECASE) (2019), the inaugural IEEE Signal Processing Society Early Career Technical Achievement Award (2019) for contributions to high-dimensional structured signal processing, and named a Goldsmith Lecturer by IEEE Information Theory Society (2021).

Prof. Chi was an invited plenary speaker at the Signal Processing with Adaptive Sparse Structured Representations Workshop (SPARS) (2019) and the SIAM Conference on Imaging Science (2020). Within the IEEE Signal Processing Society, she was Member, Data Science Initiative (2020–2021); Elected Member, Sensor Array and Multichannel (SAM) Technical Committee (2019–2021); Elected Member, Signal Processing Theory and Methods (SPTM) Technical Committee (2016–2018); Elected Member, Machine Learning for Signal Processing (MLSP) Technical Committee (2016–2018); Associate Editor, IEEE Transactions on Signal Processing (since 2018), IEEE Transactions on Information Theory (since 2021), IEEE Transactions on Pattern Recognition and Machine Intelligence (since 2020), and guest edited a special issue on “Rethinking PCA for Modern Data Sets: Theory, Algorithms, and Applications”, which appeared in the August 2018 issue of Proceedings of the IEEE. Prof. Chi’s research interests lie in the theoretical and algorithmic foundations of data science, signal processing, machine learning and inverse problems, with applications in sensing and societal systems, broadly defined.

**DATE : June 20, 2022 | Monday**

**TIME : 5:00 PM IST | 7:30 AM EST**

**REGISTRATION LINK : <https://bit.ly/3xMuhK0>**

