

SEMINAR ANNOUNCEMENT

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING
COLLEGE OF DESIGN AND ENGINEERING
Website: <https://cde.nus.edu.sg/ece>

Area: Communications and Networks

Host: Assoc Prof Tan, Yan Fu Vincent

Teaching Seminar

TOPIC	:	Ordinary Least Squares Regression
SPEAKER	:	Dr Pan Yangchen Senior Researcher at Huawei Technologies, Canada
DATE	:	Tuesday, 5 July 2022
TIME	:	10.00AM to 11.00AM
VENUE	:	Join Zoom Meeting https://nus-sg.zoom.us/j/4156763801?pwd=NUwzUWhwdlZlcGt3cmhyTzFld1V0QT09 Meeting ID: 415 676 3801 Passcode: 662108

ABSTRACT

What could be an effective and easy way to make predictions given the past data? In this lecture, we will study one of the most basic, simple, and popular machine learning algorithms for making predictions: ordinary least squares (OLS) regression. We start from a simple motivating example and develop intuitions about how the OLS works. We then go deeper to understand the working mechanism behind such an algorithm. We provide probabilistic and geometric understandings of this algorithm, based on which we learn when the algorithm would work well and how we can improve further. You would be able to customize your own OLS regression to build simple prediction models to approach real-world problems after taking the lecture.

BIOGRAPHY

Yangchen Pan obtained his Ph.D. degree from the University of Alberta last year, under the supervision of Dr. Martha White from the University of Alberta and Dr. Amir-massoud Farahmand from the University of Toronto. Before transferring to the University of Alberta, he was a Ph.D. student at Indiana University at Bloomington in the United States. He is broadly interested in machine learning, focusing on reinforcement learning. His research covers a broad range of topics: improving data efficiency of learning algorithms by developing mathematical optimization techniques, mitigating catastrophic forgetting by sparse representation, and improving the scalability of reinforcement learning algorithms and kernel representations. He has published and reviewed papers at well-known AI/ML conferences. He also serves as a reviewer for journals such as the Journal of Machine Learning Research (JMLR) and Transactions on Machine Learning Research (TMLR). He won the outstanding reviewer award at NeurIPS 2021 and the top reviewer award at AISTATS 2022.

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