

Probabilistic Programming for Scientific Discovery

Lecture 3

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Lviv Data Science Summer School

July 29, 2020

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Outline

Bayesian Deep Learning

Type 2 Systems: Marrying Deep Learning with Probabilistic Programming

What is type 2?

- Definition of type 2 machine learning from Yoshua Bengio's talk with reference

Including Generative Models

- Oracle construction or surrogates whatever you seek to call it
- GANs
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 - Embedded in a probabilistic programming system
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 - Theory
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