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Uncertainty Quantification for Neural Networks: Make your model predictions trustworthy

Friday 22 November 2024 13:30 (1 hour)

In machine learning, the ability to make reliable predictions is paramount. Yet, standard ML models and pipelines provide only point predictions without accounting for model confidence (or the lack thereof). Uncertainty in model outputs, especially when faced with out-of-distribution (OOD) data, is essential when deploying models in production. This talk serves as an introduction to the concepts and techniques for quantifying uncertainty in machine learning models. We will explore the different sources of uncertainty and cover various methods for estimating these uncertainties effectively. By understanding and addressing uncertainty, particularly in the context of OOD data, practitioners can enhance the robustness of their models and foster greater confidence in model predictions.

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