

Hydra: Streamlining Deep Learning Project Configuration

Simon Planzer
Manaaki Whenua Landcare Research
planzers@landcareresearch.co.nz

ABSTRACT / INTRODUCTION (Up to 200 words)

Deep learning projects often involve complex configurations of hyperparameters, data preprocessing, model architectures, and training procedures. Managing these configurations efficiently is critical for achieving optimal performance and reproducibility. The Hydra framework emerges as a potent solution to streamline the configuration process in deep learning projects.

This presentation will delve into Hydra's features, showcasing its ability to create hierarchical configurations, effortlessly switch between different setups, and integrate with popular deep learning frameworks. Attendees will gain insights into structuring configurations for different model architectures, data preprocessing steps, and training scenarios. Moreover, the talk will highlight Hydra's role in facilitating collaboration among researchers and improving project scalability.

By adopting Hydra for configuring deep learning projects, researchers and practitioners can significantly reduce the time spent on configuration management, enabling them to focus on innovation and achieving better model performance.

As part of this talk, Hydra will be discussed in the context of Manaaki Whenu Landcare Research's deep learning pipeline and deep learning objectives.

ABOUT THE AUTHOR(S)

Name : Simon Planzer

Bio: Simon Planzer is a member of the research team at Manaaki Whenua Landcare Research. His work primarily involves the development and implementation of deep learning workflows. Simon's focus is on applying these techniques to address remote sensing problems. Through his contributions, he aims to contribute to the broader understanding of how technology can intersect with environmental research.