Foundation models for EEG analysis

From raw EEG to robust insights

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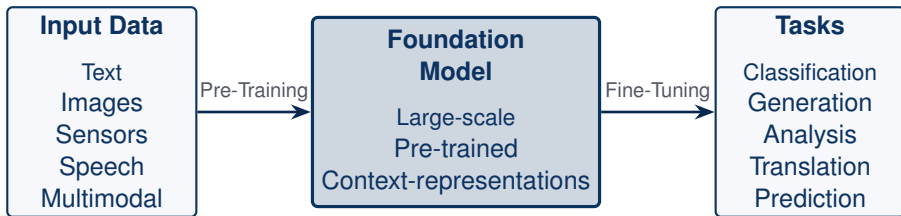Universidad Tecnológica de Pereira

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1. What is a Foundation Model?

Foundation Models

Foundation models are large-scale machine learning models trained on vast amounts of data across various domains and modalities, called pre-training step. They can be fine-tuned for specific downstream tasks with relatively small-labeled datasets, called fine-tuning step.

Input Data Text Images Sensors Speech Multimodal	→ Pre-Training →	**Foundation Model** Large-scale Pre-trained Context-representations	→ Fine-Tuning →	**Tasks** Classification Generation Analysis Translation Prediction

That is, learn general representations during pre-training that can be transferred to various specific tasks during fine-tuning.