

Relation Nets

Metric Learning

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Meta Learning

Meta-learning is **learning** to learn; the process of *improving* a learning algorithm over multiple learning episodes/tasks.

Improve How?

- Generalization performance
 - Avoid overfitting
- Learning speed
- Adaptability
 - Adapt to new tasks with minimal data or tuning

Learn What?

- Hyper Parameters / Neural Architecture
- Initial Condition
- Optimizer
 - SGD/Adam? Step size?
- Loss Function
- Minibatch Selection