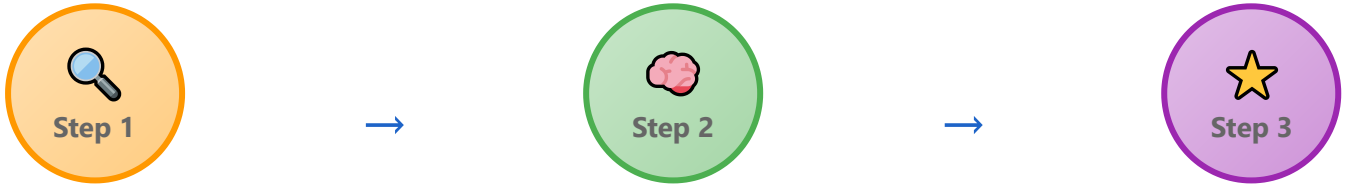
Neural Architecture Search (NAS)

GOAL

Automatically discover optimal network architectures using ML

NAS Process



Search Space

Operations · Connections · Layer counts · Kernel sizes · Channel counts

Search Strategies

Reinforcement learning · Evolutionary algorithms · Gradient-based

Success Stories

NASNet · EfficientNet · AmoebaNet - State-of-the-art results

Computational Cost

Originally thousands of GPU-hours · Now more efficient methods

Future Direction: Architecture search becoming standard practice for deployment optimization