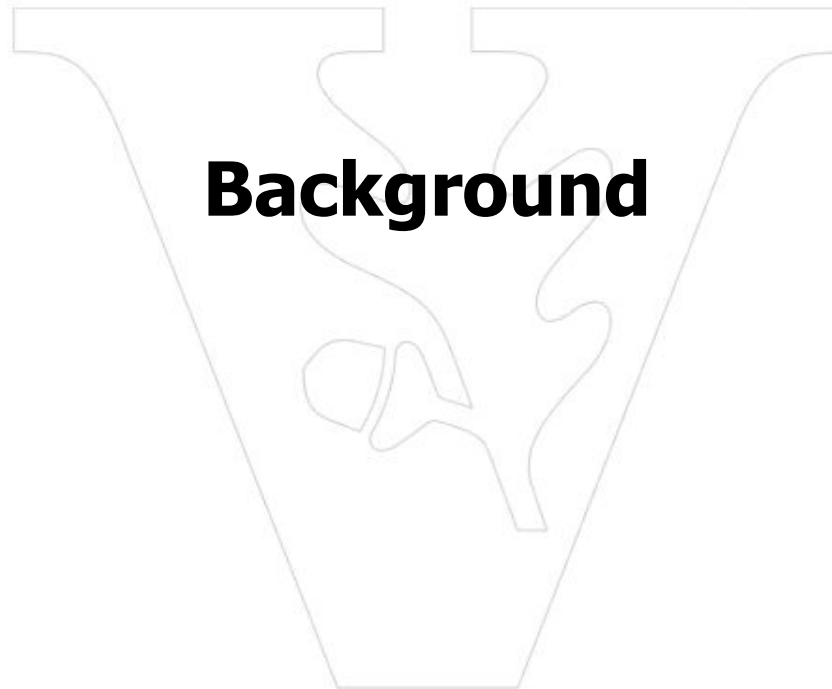




Intro to DeepForge





What is Deep Learning?



- A *deep neural network* is an artificial neural network with multiple hidden layers.
- Flexible enough to be applied to a number of problems:
 - Speech-to-text (ASR)
 - Image segmentation
 - Image classification
 - Styling images
 - Sentiment analysis
 - Reinforcement learning
 - Anomaly detection





DeepForge is an open-source development environment providing end-to-end support for creating deep learning models.



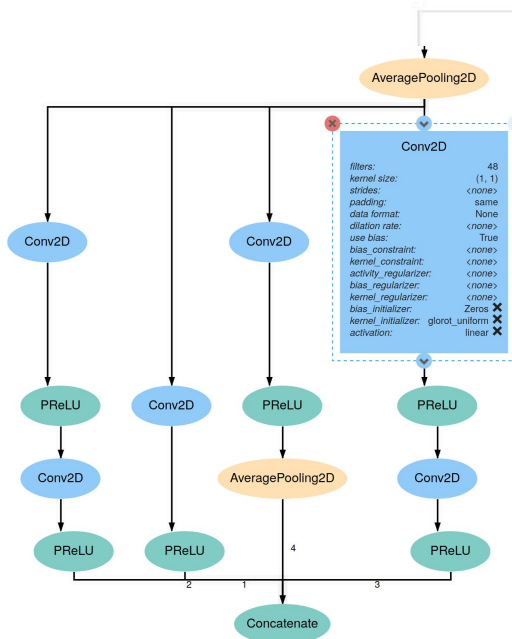
Goals



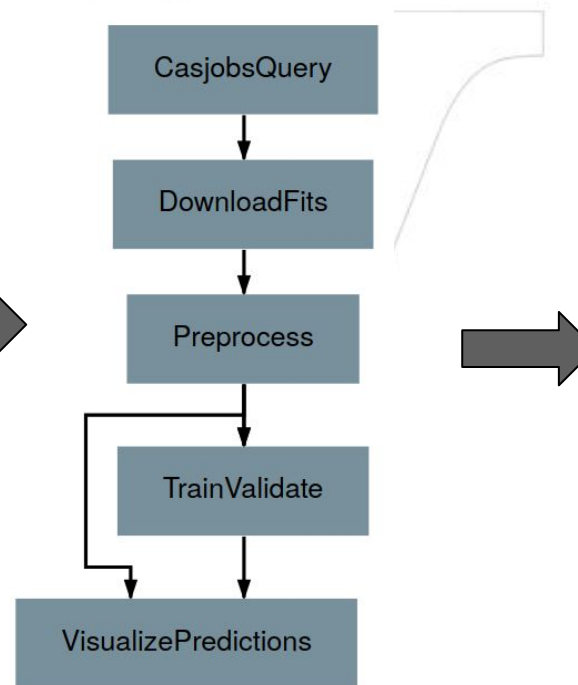
- Lower the barrier to entry for deep learning
 - Visual editor for neural networks, pipelines
 - Errors at design time rather than runtime
 - Interactive editing (in progress!)
- Improve productivity and (workflow) reproducibility
 - Automatic data provenance
 - Automatic version control (thanks, WebGME!)
 - Collaborative editing support (thanks, WebGME!)
- Integrate with existing HPC resources
 - SciServer Compute/Files integration
 - S3 integration
 - etc



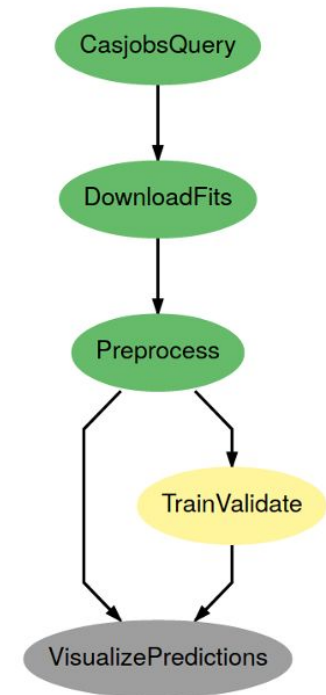
High-Level Overview



Design **Architectures**



Build Training/Testing **Pipelines**
(from **Operations**)



Execute Pipelines

