```
┌──────────────────────┐                    ┌──────────────────┐                       ◇
│ Select Dataset       │                    │ Choose Foundation │                    FM Fitness
│ Exploratory          │ ─────────────────> │ Models (FM)       │ ───────────────>   for Use
│ Analysis and         │                    │                   │                      ◇
│ Finalize for Domain  │                    └──────────────────┘
│ Use                  │
└──────────────────────┘
```

Select Dataset Exploratory Analysis and Finalize for Domain Use

Choose Foundation Models (FM)

FM Fitness for Use

No

Yes

Prepare for Data Fine Tuning

Fine Tune FM Model

Fine Tune FM Model and Prompt Engineering Overlay

Fine Tune FM Model with Prompt Engineering (Together)

Encoder Model + Supervised Learning

Inference the Model with Validation Dataset

Evaluation of Performance (Stability, Bias, Accuracy)

Publish Results

The Prompt2Model architecture seeks to automate the core machine learning development pipeline,
allowing us to train a small yet accurate model from just a prompt

https://github.com/neulab/prompt2model

Prompt + Few Examples

Input Parser → Prompt Spec

Model Retriever → Retrieved Model

Dataset Retriever → Retrieved Dataset

Dataset Generator

Model Trainer

Heading

Generated Test Set

Generated Training Set

Performance Estimate ← Evalutaion

Trained Model