



bluenotes
GLOBAL 2022

From Muggles to Hogwarts

BlueML

Machine Learning

A computer program is said to learn from **experience E** with respect to some class of **tasks T** and **performance** measure **P**, if its **performance** at **tasks** in **T**, as measured by **P**, improves with **experience E**.

Task T



Experience E



Performance P



Machine Learning = Data-driven process

Task T

- Text classification
- Multilabel
- Different domains:
 - Higher Education
 - Employee Experience
 - Employee Learning Experience

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Task T



Experience E

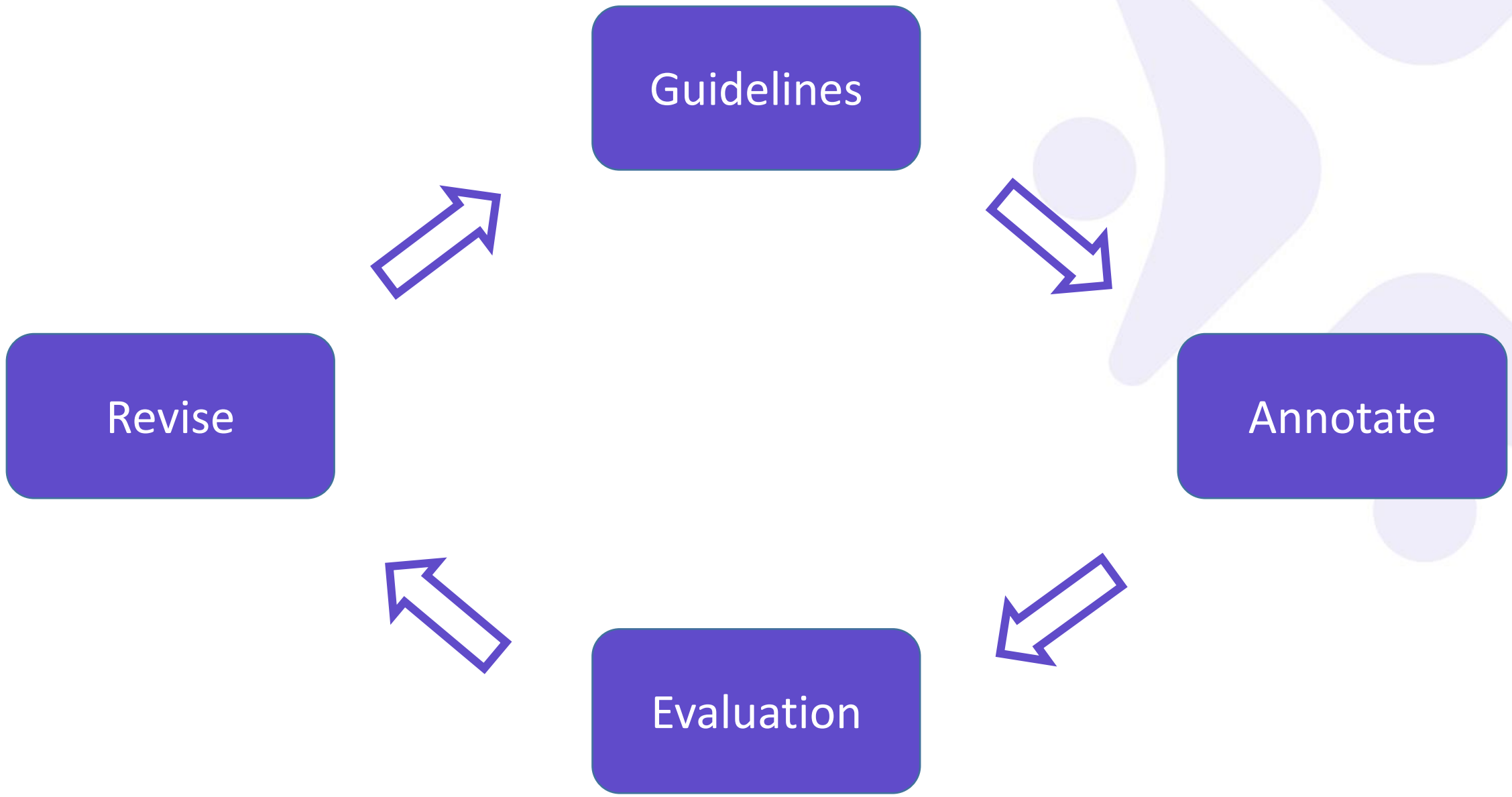


Performance P



Experience E

- Open feedback relevant to the task
- Annotation



Guidelines

1. Initial manual survey of the data
2. Write the definitions for each category
3. Find typical examples
4. List common keywords
5. Discussions with Domain Knowledge Experts

Annotate

1. 3 annotators read and extract relevant information from texts
2. A judgement call is made for the sentiment(s) and emphases in texts
3. All categories are evaluated at once for each text
4. More than one category per text is possible

Evaluate

1. QA by our most experienced annotators
2. Search, identify, and research edge cases from annotated texts
3. Meetings and discussions over edge cases
4. Determine and experiment with potential solutions (for edge cases)

Revise

1. Identify weaknesses which stemmed from Evaluation phase
2. Try to innovate new ways of tagging
3. Find delta between theory and reality
4. Make pertinent changes to guidelines iteratively until concrete rules develop

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Task T



Experience E

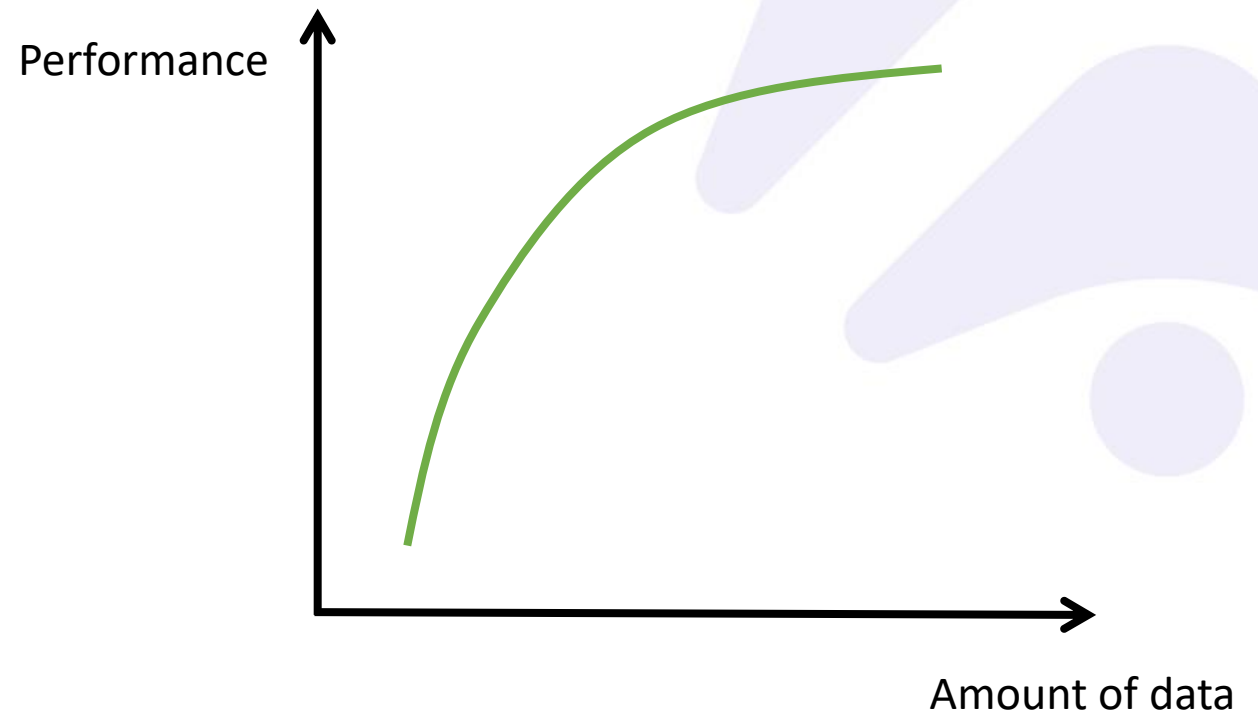


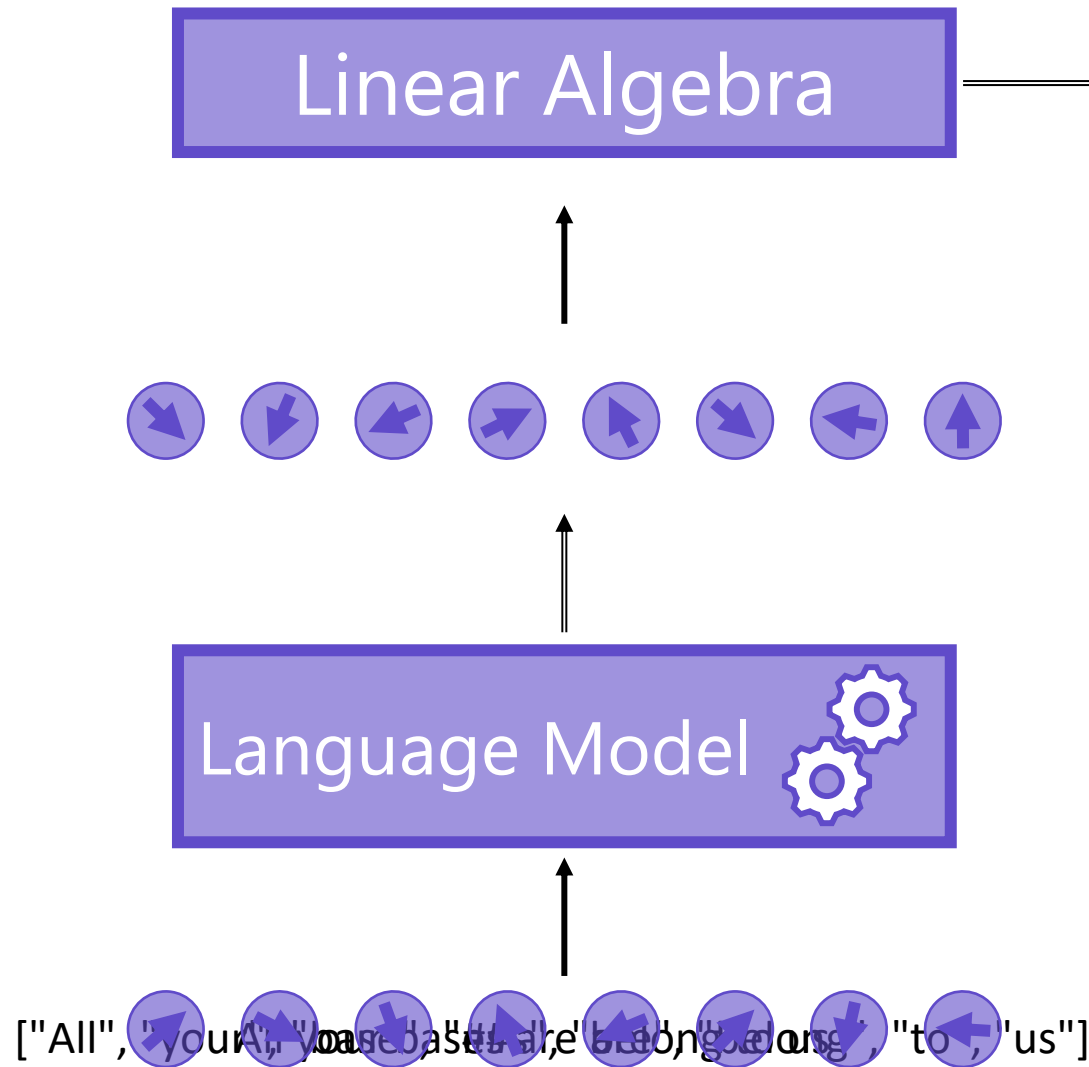
Performance P



Performance P

- F-beta Score
- Precision > Recall





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Task T



Experience E



Performance P





Joud



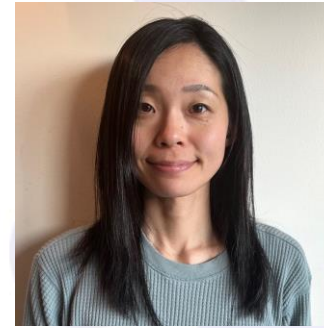
Audrey



Erika



Thomas



Akio



Melody



Brice



Suri



Sebastian



Nahla



Robert



Duncan



Leticia

The shy ones →

Selwa
Marc-Antoine
Elizaveta
Keiko
Anna-Lynn
Philip

Joey
Maureen
Monica
Iana



Data

Ops

Research

Toss data to your ML team



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Questions?