OWNML MACHINE LEARNING CANVAS

Designed for: Capsule Wardrobe Designed by: Hitakshi Date: 4 Dec 25 Iteration:

PREDICTION TASK

What is the type of task?
Which entity are predictions made on?
What are the possible outcomes to predict?
When are outcomes observed?

Automatically analyze user-uploaded clothing images to:

classify clothing type

evaluate style similarity

assess color harmony

generate and rank outfit combinations

DECISIONS

How are predictions turned into actionable recommendations or decisions for the end-user? (Mention parameters of the process / application for this.)

Model outputs are used to:

determine valid outfit combinations

rank outfits based on compatibility

select top outfits for a 30-day calendar

Constraints:

minimum wardrobe size (≥10 items)

avoid repetition

color harmony rules

VALUE PROPOSITION

Who is the end beneficiary, and what specific pain points are addressed?
How will the ML solution integrate with their workflow, and through which user interfaces?

Technical value delivered:

eliminates manual tagging

enables real-time predictions

scalable without retraining

integrates directly into web UI

Who benefits:

end users (personal styling)

retailers (future API use)

DATA COLLECTION

How is the initial set of entities and outcomes sourced (e.g., database extracts, API pulls, manual labeling)?
What strategies are in place to update data continuously while controlling cost and maintaining freshness?

Primary data:

user-uploaded clothing images

Secondary data (development only):

DeepFashion dataset

Labels:

generated using zero-shot learning

no manual labeling

DATA SOURCES

Where can we get data on entities and observed outcomes? (Mention internal and external database tables or API methods.)

local image uploads

pretrained CLIP model

text prompts for categories

IMPACT SIMULATION

What are the cost/gain values for (in)correct decisions?
Which data is used to simulate pre-deployment impact?
What are the criteria for deployment?
Are there fairness constraints?

Correct predictions:

high-quality outfits

increased wardrobe usage

higher user satisfaction

Incorrect predictions:

poor outfit matches

Mitigation:

prompt refinement

weighted scoring logic

MAKING PREDICTIONS

Are predictions made in batch or in real time?
How frequently?
How much time is available for this (including featurization and decisions)?
Which computational resources are used?

Mode: real-time
Frequency: per image upload & capsule request
Latency target:

<1s per image

<2s per capsule

BUILDING MODELS

How many models are needed in production?
When should they be updated?
How much time is available for this (including featurization and analysis)?
Which computation resources are used?

Model used:

CLIP (ViT-B/32)

Training:

none (zero-shot inference)

Updates:

prompt tuning, not retraining

FEATURES

What representations are used for entities at prediction time?
What aggregations or transformations are applied to raw data sources?

CLIP image embeddings

HSV color values

color group labels (warm/cool/neutral)

Transformations:

cosine similarity

weighted aggregation

MONITORING

Which metrics and KPIs are used to track the ML solution's impact once deployed, both for end-users and for the business?
How often should they be reviewed?

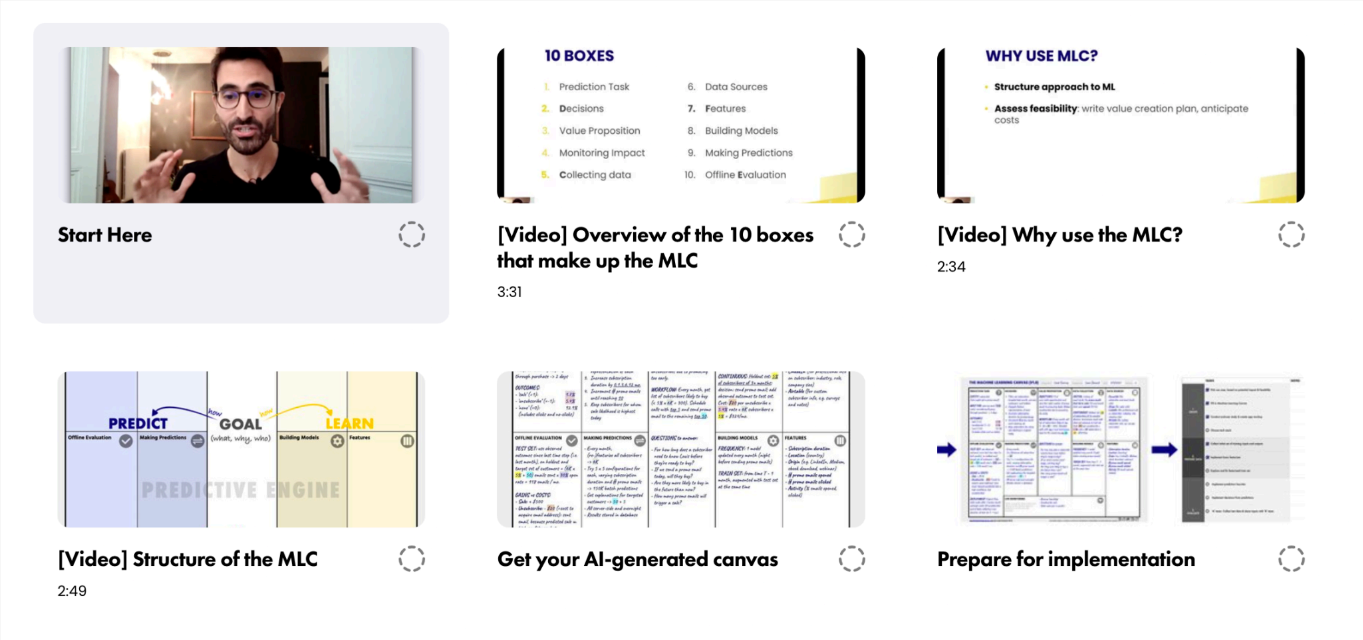
System metrics:
inference time
classification consistency
User signals:
capsule acceptance
repeat usage

OWNML.CO

[FREE] ONLINE COURSE

Introduction to the Machine Learning Canvas

Get started with the MLC in this short course taught by its author.



Start Here

10 BOXES

1. Prediction Task
2. Decisions
3. Value Proposition
4. Monitoring Impact
5. Collecting data
6. Data Sources
7. Features
8. Building Models
9. Making Predictions
10. Offline Evaluation

[Video] Overview of the 10 boxes that make up the MLC

3:31

WHY USE MLC?

- Structure approach to ML
- **Assess feasibility**: write value creation plan, anticipate costs

[Video] Why use the MLC?

2:34

[Video] Structure of the MLC

2:49

Get your AI-generated canvas

Prepare for implementation

Start now at **ownml.co/intro**