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|---|--|--|--|---|
| PREDICTION TASK  Type of task? Entity on which predictions are made? Possible outcomes? Wait time before observation? | DECISIONS  How are predictions turned into proposed value for the end-user? Mention parameters of the process / application that does that. | VALUE PROPOSITION  Who is the end-user? What are their objectives? How will they benefit from the ML system? Mention workflow/interfaces. | DATA COLLECTION  Strategy for initial train set & continuous update. Mention collection rate, holdout on production entities, cost/constraints to observe outcomes. | DATA SOURCES  Where can we get (raw) information on entities and observed outcomes? Mention database tables, API methods, websites to scrape, etc. |
| IMPACT SIMULATION  Can models be deployed? Which test data to assess performance? Cost/gain values for (in)correct decisions? <u>Fairness constraint</u> ? | MAKING PREDICTIONS  When do we make real-time / batch pred.? Time available for this + featurization + post-processing? Compute target? | | BUILDING MODELS  How many prod models are needed? When would we update? Time available for this (including featurization and analysis)? | FEATURES  Input representations available at prediction time, extracted from raw data sources. |
| MONITORING  Metrics to quantify value creation and measure the ML system's impact in production (on end-users and business)? | | | | |

Ready for the next step?

Check out the ML Project Checklist!

Lead ML implementation with confidence with the CRISP—OWNML methodology (*Cross-Industry Standard Process to create your own Machine Learning system*) and its checklist. End-to-end ML projects are broken down into **9 phases of 4-5 tasks each**.

The checklist serves as a roadmap, listing in detail what you need to do, and in which order, so you can minimize risks and **make the most efficient use of your (and your team's) time**.

Learn more at ownml.co/checklist

CRISP—OWNML (0.1-beta)

| | TASKS | NOTES |
|------------------|---|-------|
| 4. BUILD MODEL | <input type="checkbox"/> Pick use case, based on potential impact & feasibility | |
| | <input type="checkbox"/> Fill in Machine Learning Canvas | |
| | <input type="checkbox"/> Conduct end-user study & create app mockup | |
| | <input type="checkbox"/> Choose tech stack | |
| 1. IDEATE | <input type="checkbox"/> Collect initial set of training inputs and outputs | |
| | <input type="checkbox"/> Implement basic featurizer | |
| | <input type="checkbox"/> Explore and fix featurized train set | |
| | <input type="checkbox"/> Implement prediction heuristic | |
| 5. ANALYZE | <input type="checkbox"/> Implement decisions from predictions | |
| | <input type="checkbox"/> 'A' team: Collect test data & share inputs with 'B' team | |
| | <input type="checkbox"/> Implement evaluator & deployment criterion | |
| | <input type="checkbox"/> Evaluate prediction heuristic + decisions | |
| 2. PREPARE DATA | | |
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| 6. SHADOW-DEPLOY | | |
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| 3. EVALUATE | | |
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