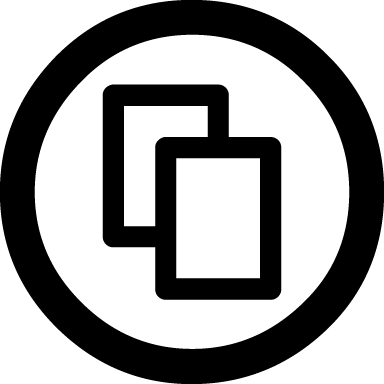
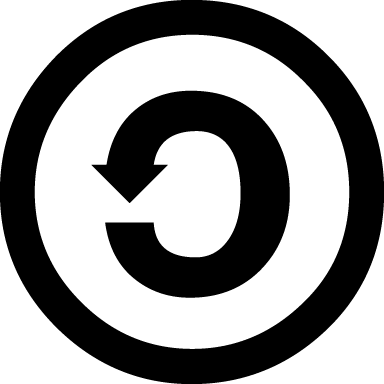
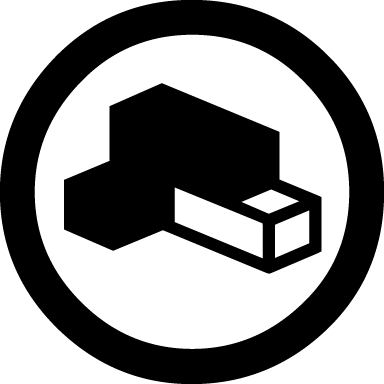
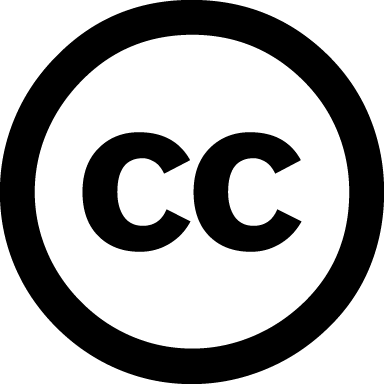
# The Machine Learning Canvas (v0.4) Designed for: Predict Diabetes Designed by: Shijun Wei Date: 4.24. 2021 Iteration: 1.

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| --- | --- | --- | --- | --- |
| **Decisions**  How are predictions used to make decisions that provide the proposed value to the end-user?  The predictions will help detect the diabetes of potential patient by measuring several biological indexes. | **ML task**  Input, output to predict, type of problem.  Input: numerical data  Output of predict: Binary data  Type of problem: classification | **Value Propositions**  What are we trying to do for the end-user(s) of the predictive system? What objectives are we serving?  Predict whether the person has diabetes or not.  The objective of the dataset is to diagnostically predict whether or not a patient has diabetes, based on certain diagnostic measurements included in the dataset. | **Data Sources**  Which raw data sources can we use (internal and external)?  Data from National Institute of Diabetes and Digestive and Kidney Diseases | **Collecting Data**  How do we get new data to learn from (inputs and outputs)?  Data collected from patients which includes the number of pregnancies the patient has had, their BMI, insulin level, age, and so on. |
| **Making Predictions**  When do we make predictions on new inputs? How long do we have to featurize a new input and make a prediction?  Whenever we have the biological indexes of a person, we can make the prediction. | **Offline Evaluation**  Methods and metrics to evaluate the system before deployment.  Validation on random assigned test data. |  | **Features**  Input representations extracted from raw data sources.  Pregnancies', 'Glucose', 'BloodPressure', 'SkinThickness', 'Insulin', 'BMI', 'DiabetesPedigreeFunction', 'Age', 'Outcome | **Building Models**  When do we create/update models with new training data? How long do we have to featurize training inputs and create a model?  If we have more features collected in the future. |
|  | **Live Evaluation and Monitoring**  Methods and metrics to evaluate the system after deployment, and to quantify value creation. | Monitor the prediction especially for the false negative cases |  |  |

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