



## PROJECT SPECIFICATION

**Build a Sign Language Recognizer****PART 1: Data**

CRITERIA	MEETS SPECIFICATIONS
Prepare data for modeling	<ol style="list-style-type: none"><li>1. Student provides correct alternate feature sets: delta, polar, normalized, and custom.</li><li>2. Student passes unit tests.</li><li>3. Student provides a reasonable explanation for what custom set was chosen and why (Q1).</li></ol>

**PART 2: Model Selection**

CRITERIA	MEETS SPECIFICATIONS
Implement model selection techniques	<ol style="list-style-type: none"><li>1. Student correctly implements CV, BIC, and DIC model selection techniques in "my_model_selectors.py".</li><li>2. Student code runs error-free in notebook, passes unit tests and code review of the algorithms.</li><li>3. Student provides a brief but thoughtful comparison of the selectors (Q2).</li></ol>

**PART 3: Recognizer**

CRITERIA	MEETS SPECIFICATIONS
Recognize ASL words	<ol style="list-style-type: none"><li>1. Student implements a recognizer in "my_recognizer.py" which runs error-free in the notebook and passes all unit tests</li><li>2. Student provides three examples of feature/selector combinations in the submission cells of the notebook.</li><li>3. Student code provides the correct words within &lt;60% WER for at least one of the three examples student provided.</li><li>4. Student provides a summary of results and speculates on how to improve the WER.</li></ol>

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### Suggestions to Make Your Project Stand Out!

#### PART 4: (OPTIONAL) Improve the WER with Language Models

The recognizer you implemented in Part 3 is equivalent to a "0-gram" SLM. Improve the WER with the SLM data provided with the data set in the link above using "1-gram", "2-gram", and/or "3-gram" statistics.

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#### [Student FAQ](#)