Data-Driven 3D Primitives for Single Image Understanding
Selected Art Examples
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Here, we provide a few examples of the system run on selected pieces of art for fun. The system works remarkably well on some pictures (and like David, it seems to like Edward Hopper), although it struggles on many pictures as well. In many cases (including images not shown), it decides not to predict such as on *Above Eternal Peace* by Levitan. Note that this is frequently the correct decision. The mistakes, however, are often interesting: the textured robes in Fra Angelico’s *Annunciation* are confused for a chair; and the middle parts of the cabinet in Matisse’s *Woman Reading* are confused multiple times for the intersection of a piece of furniture and the floor.

<table>
<thead>
<tr>
<th>Input</th>
<th>Sparse (0.85)</th>
<th>Sparse (0.65)</th>
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</thead>
<tbody>
<tr>
<td>Edward Hopper, <em>Summertime</em>, 1943</td>
<td><img src="image" alt="Sparse (0.85)" /></td>
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<td>Edward Hopper, <em>South Carolina Morning</em>, 1955</td>
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<td>Henri Matisse, <em>Woman Reading</em>, 1894</td>
<td><img src="image" alt="Sparse (0.85)" /></td>
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<tr>
<td>Isaac Levitan, <em>Above Eternal Peace</em>, 1894</td>
<td><img src="image" alt="Sparse (0.85)" /></td>
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</tbody>
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Edward Hopper, *Excursion into Philosophy*, 1959

Edward Hopper, *Hotel Window*, 1955

Paul Cézanne, *Paul Alexis Reading a Manuscript to Zola*, 1969

Giotto, *Annunciation to St. Anne*, c. 1305

Fra Angelico, *Annunciation*, c. 1450
Input

Sparse (0.85)
Ilya Repin, *Unexpected Return*, 1884

Sparse (0.65)

Vincent Van Gogh, *Cafe Terrace at Night*, 1888

Edward Hopper, *Hotel Room*, 1931