Top-down vs. bottom-up guidance of eye movements in real-world scene search

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Experiment and Data
- Eye tracking data and contextual prior
- Search task with 130 images
- 3 search conditions

Fixation points and Score
- Calculate score per fixation point
- Calculate score per image

Analysis and Results
- Score distribution per condition:
  - Scores per fixation point:
    - Scores per image
- Saliency vs. Context dominance per scene type:

Fixation points and Score

Our main hypotheses:
1. Eye movement is guided by saliency and contextual cues
2. Contextual cue plays a more dominant role

Outlook and References
- Bigger data set, more subject
- Analyzing saccades
- Analyzing pupil dilation
- Multivariate analysis
- Deterministic approach? Markov chains? Reinforcement learning?