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Context Retrieval from GoPro Videos

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Pairwise Image Feature Matching (SIFT)

$$\mathbf{x}_2^{\mathsf{T}}\mathbf{K}^{-\mathsf{T}}\mathbf{E}\mathbf{K}^{-1}\mathbf{x}_1 = 0$$

Rejection via RANSAC Point Triangulation (SVD)

$$\min_{\mathbf{a}_j,\,\mathbf{b}_i}\sum_{i=1}^{n}\sum_{j=1}^{m} v_{ij}\, d(\mathbf{Q}(\mathbf{a}_j,\mathbf{b}_i),\,\mathbf{x}_{ij})^2,$$

Pt 1   Pt 2   Pt 3   Pt 4
Camera 1   Camera 2   Camera 3

Perspective-n-point (+Bundle ad)

Data

Max pooling

Convolutional Layers   Convolutional Layers   Convolutional Layers

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LSTM

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gestures