



**PI:** M. Alex O. Vasilescu  
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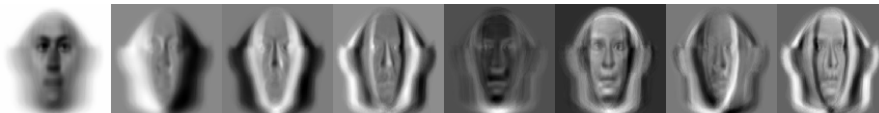
Tensor Technologies, Inc.  
University of California, Los Angeles

- **Qualification and Capabilities:**
  - Developed Innovative Algorithms during the last IARPA funding cycle
  - Face representation models (Tensorfaces – facial signature), recognition and synthesis algorithms
- **Needed:** Large System Integrator

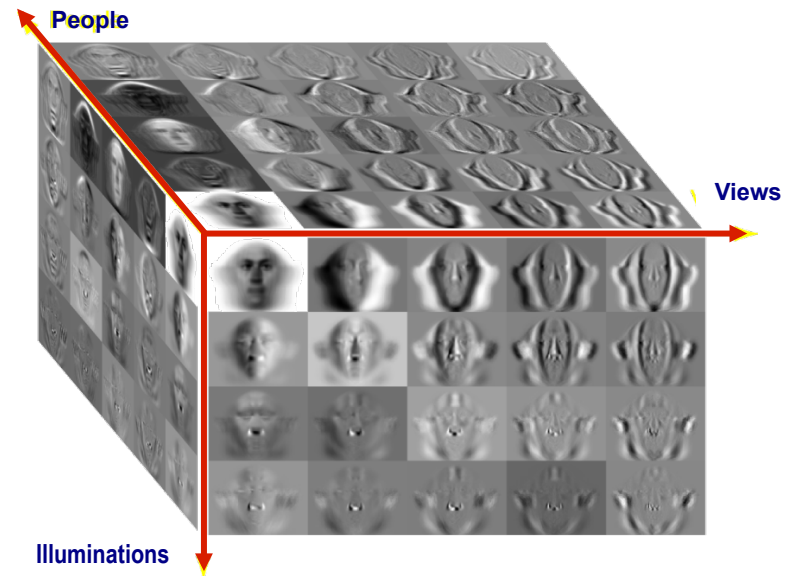
# Research Areas

- Statistical machine learning models of the appearance of objects in 2D and 3D images
  - Data-driven statistical model -- methodically trained from offline data
    - TensorFaces -- compact, descriptive person representation. It is a facial signature invariant of viewpoint, illumination, expression
  - Online recognition and synthesis relative to the trained model

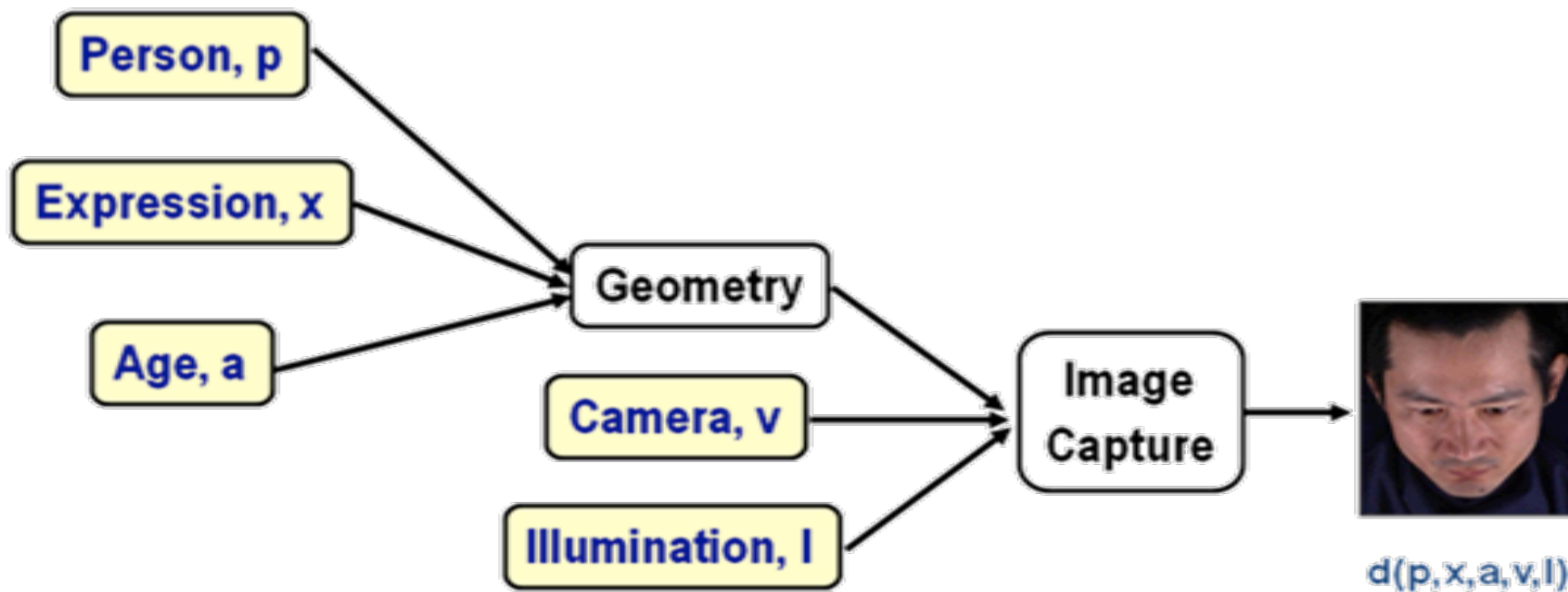
**PCA:**



**TensorFaces:**



# Facial Signature Extraction (Person Representation, $p$ )



*Decompose image into its original causal factors*





# Contact Information

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