Visual Memory

by

Christopher James Kellogg

Submitted to the Department of Electrical Engineering and Computer Science
in partial fulfillment of the requirements for the degrees of

Bachelor of Science
and
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Abstract

Visual memory supports computer vision applications by efficiently storing and retrieving spatiotemporal information. It is a unique combination of databases, spatial representation and indexing, and temporal representation and indexing. This thesis designs a visual memory architecture that meets the requirements of a number of computer vision applications. It also presents an implementation of part of this design in support of a scene monitoring prototype.

Thesis Supervisor: Alex P. Pentland
Title: Associate Professor of Media Arts and Sciences

Thesis Supervisor: Bruce E. Flinchbaugh
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