

MATRIX PROCESSING APPARATUS

ABSTRACT

Methods, systems, and apparatus, including a system for transforming sparse elements to a dense matrix. The system is configured to receive a request for an output matrix based on sparse elements including sparse elements associated with a first dense matrix and sparse elements associated with a second dense matrix; obtain the sparse elements associated with the first dense matrix fetched by a first group of sparse element access units; obtain the sparse elements associated with the second dense matrix fetched by a second group of sparse element access units; and transform the sparse elements associated with the first dense matrix and the sparse elements associated with the second dense matrix to generate the output dense matrix that includes the sparse elements associated with the first dense matrix and the sparse elements associated with the second dense matrix.

FIG. 1