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Education

B.S. Political Science, National Cheng Kung University, 2015.

B.S. Engineering Science, National Cheng Kung University, 2017.

B.S. Computer Science and Engineering, Seoul National University University, 2017.

Projects

Image Blender

Implement Gaussian smoothing, upsampling, gaussian pyramid, laplacian pyramid from scratch.

Apply a mask on the blending image, merge the laplacian pyramids and return the upsampled gaussian pyramid added with laplacian pyramid

Image Mosaicing

Caculate homography matrix between two images

Convert and combine the two images based on homography matrix

Apply Tucker Decomposition to tiny-yolo

Boost performance of tiny-yolo on caffe in terms of decomposing one layer into several smaller layers.

SnuPL/1 Compiler

SnuPL1 is a procedural language related to Oberon programming language. SnuPL/1 supports conditional expressions, IO, string, arrays, etc..

Implemented in C++ the compiler will compile SnuPL/1 source code into 32-bit Intel assembly code.

Weighted Round Robin Linux Scheduler for Multicore System

A weighted round robin scheduling class with SMP support.

Load balancing is provided to balance multicores.

Rotation based Read-write Lock for ARTIK10

A read-write lock based on rotation information from device.

Synchronize with spinlock and conditional variables.

Manage waiting list with linux circular list.

SNU Source Code Plagiarism Detector

Extract Abstract Syntax Tree(Ast) from gcc for C programs.

Apply Tree Edit Distance algorithm to compare distance between two Asts.

Visualize plagiarism result with Graphviz and Neo4j