Gao Zhiyuan

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Computer Science and Engineering

Github: https://github.com/alapha23/

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.

Skill

C, Linux

Projects

SnuPL/1 Compiler

SnuPL1 is a procedural language related to Oberon programming language. SnuPL/1 does not support object-orientation and the only composite data type supported are arrays.

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

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

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.

A Weighted Round Robin Scheudler in Multicore System

Tested on Samsung Artik10.

Load balance between 8 cores