

# Gao Zhiyuan

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Computer Science and Engineering

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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.

## Skills

C/C++, Linux, java, python, matlab

English, Japanese(JLPT N1)

## Projects

### *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.

### *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.

### *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

### *Embed tiny-yolo on Raspberry Pi for Face Detection*

Train tiny-yolo using WIDER face dataset

Embed Darknet on raspberry pi 3