# 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 Programming Language

### **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.

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## Activities

Speaker at OpenSUSE Asia Summit 2017 with topic of Open Source Application in Malaysian Aboriginal Education

Proficient in English and Japanese