

# Yuanzhi LIANG

Shenyuan Honors College of

Beihang University

B.S. Computer Science  
(3.7/4.0)

## Connect

**E-mail:** lyztonny@gmail.com

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**Github:** github.com/tonnylyz

## Education

**Beihang University**

Sept 2015 – July 2019

**Shenzhen Middle School**

Sept 2012 – July 2015

## Interest

Computer Architecture

Operating System / Kernel

Machine Learning

Web Development

## Skills

Language

C# | C++ | C | Java | Python

Hardware design

FPGA | Verilog HDL

Mini OS Kernel design

ARMv8 | Bare-metal

Machine Learning

NN | Keras

Web Full Stack

Asp.net | Nodejs

Database Programming

SQL Server | MySQL | PostgreSQL

## Brief

Yuanzhi Liang is a current undergraduate student at Beihang University majored in Computer Science. He is also a student who graduated from Shenzhen Middle School in China. Not only does he have a broad horizon on software development especially web app, he also a laid solid foundation for computer system knowledge and have an abundant hands-on experience during the study in college course. His interest lies in system software design, machine learning and web application development.

## Coursework

C Language Programming (100) | Computer Structure (92/Lab 100) | Operating System (87/Lab 89) | Database (97) | Compiler (88) | Introduction to Machine Learning (92) | Introduction to Data Mining (99)

## Experiences

### Teacher Assistant @ Operating System Lab Course

*Feb 2018 - present*

- \* Working in OS TA team, a student teaching assistant advisor team consists of several outstanding undergraduates.
- \* Designing challenge tasks for student to implement a small Operating System kernel running on Raspberry Pi.
- \* Team introduction: [scse.buaa.edu.cn/bkspy/bkspy/S\\_T\\_A\\_Rjftdbps\\_.htm](http://scse.buaa.edu.cn/bkspy/bkspy/S_T_A_Rjftdbps_.htm)

### MIPS System Design (personal project)

*June 2016*

- \* Designed a pipeline-design MIPS system from scratch using Verilog HDL.
- \* Modified it to fit and run on a Spartan FPGA with UART I/O.
- \* Project Source: [github.com/tonnylyz/MIPS-CPU-FPGA](https://github.com/tonnylyz/MIPS-CPU-FPGA)

### Founder @ SZMS Student Activity Association Web Dept

*Sept 2013 – June 2014*

- \* Worked on building website for school's New Year's Gala, School Top-10 Singer Competition, SAA Official website and SAA collaborative platform (SAAO).
- \* Taught classes of web development and programming.
- \* Website: [xuehuo.shenzhong.net](http://xuehuo.shenzhong.net)

### Member @ SZMS FORMS

*June 2014 -Jan 2017*

- \* FORMS is a team of 20 students aiming to reconstruct their high school campus in Minecraft world.
- \* Worked on deploying game server integrated with account database enabling collaboration for teammates and online Minecraft school sightseeing for students.
- \* Made 3D printing model of school building and sold it in SZMS New Year's Gala 2017.
- \* Website: [forms.ms](http://forms.ms)

## Side Projects

- \* Raspberry Pi 3 bare-metal Operating System: [github.com/tonnylyz/Raspberry-Pi-3-JOS](https://github.com/tonnylyz/Raspberry-Pi-3-JOS)
- \* C-like syntax compiler: [github.com/tonnylyz/TCC](https://github.com/tonnylyz/TCC)
- \* Collaborative website for SAA: [github.com/Xuehuo/SAA-Online](https://github.com/Xuehuo/SAA-Online)
- \* Class website: [github.com/tonnylyz/CAS](https://github.com/tonnylyz/CAS)

## Awards

- \* 3<sup>rd</sup> Place team @ BUAA Cyber Security Capture the Flag Competition (June 2017)