

# KEYAN ZHAI

ShanghaiTech University

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## EDUCATION

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**ShanghaiTech University**

*Sep 2017 - Present*

*B. Eng. in Computer Science, minor in Business Administration*

**Grades:** Overall GPA 3.34/4 (**Third year GPA 3.82/4, Major GPA 3.95/4, Top 10%**)

**Core courses:** Computer Architecture I (**A**), Signals and Systems (**A**), Operating System I (**A**), Artificial Intelligence (**A-**), Software Development and Validation for Medical Cyber Physical Systems (**A**), Cryptography (**A**), Mechanical Design (**A+**), Mechatronics (**A+**)

## RESEARCH EXPERIENCE

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**LIMA Lab, ShanghaiTech University**

*May 2020 - Present*

*Internship, Supervisor: Prof. Andre Rosendo*

- Designed and built a completely new quadruped robot *Slimdog* using Solidworks and 3D printing.
- Implemented Inverse Kinematics (IK) and Raibert's control on the robot.
- Developed a new optimization algorithm based on Bayesian Optimization (BO) by adjusting the discreteness of the parameters for robot learning. The new optimization algorithm reaches a performance that is 86.7% higher than the basic BO in the Schwefel function test.
- Planning to apply the new optimization algorithm on the robot for learning how to walk based on the theory of scaffold learning.

**MARS Lab, ShanghaiTech University**

*Jul 2019 - Sep 2019*

*Summer Intern, Supervisor: Prof. Sören Schwertfeger*

- Read some papers and did a survey on Wi-Fi localization.

## WORK EXPERIENCE

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**Cognitive Intelligence group, BSBII**

*Jul 2019 - Apr 2020*

*Internship, Supervisor: Dr. Yi Zhou*

- Involved in the development of an online IQ test competition platform [iqtest.pub](http://iqtest.pub) for both human and machine. The platform is used for MAIQ competition on IJCAI-2020.
- Main contributions: back end development of the log-in/sign-up module, data set management, automatic generation of the RPM problems.

**Online Education department, China Telecom**

*Aug 2018 - Sep 2018*

*Summer Intern*

- Front-end development and video editing with Premiere.

## TEACHING EXPERIENCE

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**Teaching Assistant, CS211 Advanced Computer Architecture**

*Fall 2020*

*Instructor: Prof. Chundong Wang*

## TECHNICAL STRENGTHS

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<b>Language</b>	Mandarin (native), English (oral and written fluency, TOEFL: 107, GRE: 320+3.5),
<b>Skills</b>	Python, C, C++, Matlab, ROS, Solidworks