

# Yuyang(Peter) Rong

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## EDUCATION

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**ShanghaiTech University**

Aug 2015 - Present

*Computer Science*

*Shanghai, China*

- **Overall GPA 3.80/4(Ranking: 5/124);**
- Major GPA 3.90/4(Self-calculated data, ShanghaiTech keeps no official record of major related GPA);
- Elected 4 graduate level courses; got A in **Operating System** and **Robotics**.

## RESEARCH

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**CSST, UCLA**

Jul 2018 - Sept 2018

*Summer Intern*

*Los Angeles, CA*

- Supervised by Prof. Lixia Zhang; I worked on **Named Data Networking(NDN)**;
- Focused on OpenmHealth. Updated it with a new identity manager utilizing NDN CERT;
- I taught myself Android development and updated the application in two months. Java and C++ used;

**ShanghaiTech**

Nov 2017 - Jun 2018

*Lab Intern*

*Shanghai, China*

- ***An Inexact First-order Method for Constrained Nonlinear Optimization*** submitted to *SIAM Journal on Optimization*(Currently under review);
- By combining line search and trust region, I designed our subproblem algorithm;
- I implemented our algorithm and subproblem algorithm using Python and did an extensive experiment on them;
- Session Chair to present in MOPTA18 at Lehigh University: *Nonlinear Optimization Methods*.

**STAR Lab, ShanghaiTech**

Jun 2017 - Sept 2017

*Lab Intern*

*Shanghai, China*

- Supervised by Prof. Sören Schwertfeger in STAR Lab(Now MARS Lab);
- Investigated on **multi-robot mapping** to help fasten mapping process;
- Used VLP16, tried Gmapping, Cartographer and our modified version.

## EMPLOYMENT

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**Toutiao, Bytedance**

Step 2018 – Present

*Research Intern*

*Beijing, China*

- Security Lab lead by Prof. Hao Chen, my work is based on **Angora fuzzer**;
- My work focus on triggering constrained integer overflow by instrumenting source code using **LLVM**;
- Involving **Rust, C, and C++ coding**.

**ABB Group**

Oct 2017 – Jul 2018

*Research Intern*

*Shanghai, China*

- Group of 10, Tried to combine robot arm and an indoor mobile car;
- I was responsible for software development, including **navigation system** & **state machine** to switch states when executing an order;

- Python, C++ and Robot Operating System(ROS) used.

## Bookends

June 2017 - Sept 2017

*Marketing Intern*

*Shanghai, China*

- *Bookends* is a startup company focusing on kid's education;
- Helped understand the children education market;
- Established a financial model with pricing for the company.

## PROJECT HIGHLIGHTS

### Screen++

Jun 2017

*Team leader*

*Shanghai, China*

- Proposed an application to connect all the screens in different platforms;
- I was responsible for the software development & market model; I also did the final presentation;
- Python & Apache used. In a group of 5 we won the **3rd prize** in iLab Hackathon.

### SafeBox

May 2017

*Team member*

*Shanghai, China*

- Course project for graduate level Operating System, group of 2;
- We implemented a visualization technology to create a sandbox;
- Using *ptrace*, we catch every system call and fail the ones that we consider unsafe.
- Rust & C used on Linux.

### iGEM

Jul 2016

*Team member*

*Shanghai, China*

- Group of 16, **Silver Metal**, we focused on intestinal disease;
- I wrote the web page and poster.

### SafeHub

Jul 2016

*Team leader*

*Shanghai, China*

- Course project for *Design Thinking*, best design in that course;
- In a group of 5, our team was concerned about the safety of the elderly when taking a bath;
- We designed a bathtub in which people cannot slip.

## TEACHING EXPERIENCE

### CS110: Computer Architecture I

2018 Spring

Leading Teaching Assistant

*ShanghaiTech*

### SI100C: Introduction to Computer Science

2017 Fall

Leading Teaching Assistant

*ShanghaiTech*

### SI100: Introduction to Information Science and Technology

2017 Spring

Teaching Assistant

*ShanghaiTech*

### CS100: Introduction to Programming

2016 Fall

Teaching Assistant

*ShanghaiTech*

## AWARDS

### Outstanding Student

Nov 2017

### ShanghaiTech President's Scholarship

Nov 2016

### Shanghai Scholarship

Oct 2016