

# Yongming Ding

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## EDUCATION

### CARNEGIE MELLON UNIVERSITY

M.S. IN INFORMATION TECHNOLOGY  
(MOBILITY)

2018.8 – 2020.5 | Pittsburgh, PA  
GPA: N/A

### SHANGHAI JIAO TONG UNIVERSITY (SJTU)

M.S. IN ELECTRONIC SCIENCE AND  
TECHNOLOGY

2016.9 – 2019.3 | Shanghai, China  
Major GPA: 3.86/4 Overall GPA: 3.72/4

B.ENG. IN MICROELECTRONICS

2012.9 – 2016.6 | Shanghai, China  
Major GPA: 3.77/4 Overall GPA: 3.57/4

## PROGRAMMING SKILLS

### PROFICIENT:

• Python • C/C++

### FAMILIAR:

• HTML/CSS • Javascript • SQL

### TECHNOLOGIES:

• Django • MySQL • Bootstrap • Git

## COURSEWORK

### CMU (\*CURRENT)

Introduction to Computer System (A)  
Web Application Development\*  
Storage Systems\*  
Introduction to Information Security\*  
Fundamentals of Telecommunications  
Networks\*

### SJTU

Computer Architecture and Embedded  
System (A)  
Advanced Computer Architecture (A)  
Algorithm and Compiler (A)  
C++ Programming (B)  
Operating System (A)  
The practice of Operating System (A)  
Data Structures (B)  
Fundamentals of Multimedia (A)  
Neural Networks and Machine Learning  
(A)

## WORK EXPERIENCE

### TENCENT | SOFTWARE ENGINEERING INTERN

2018.4 – 2018.6 | Shanghai, China

- Working for YouTu Lab belongs to the Tencent Social-Network-Group(SNG).
- Participated in developing the lung cancer intelligent screening system.
- Responsibilities include screening platform full-stack web development using Django, Vue, and MySQL, debugging, and deployment with Nginx at Fudan University Shanghai Cancer Center.

### CTRIP | SOFTWARE ENGINEERING INTERN

2015.7 – 2015.12 | Shanghai, China

- Working for Application Management Group of Ctrip Infrastructure Service.
- Constructed "Alert-Subscribe", an alert event subscription system helping DevOps engineers fix alert events. Completed the back-end job including obtaining alert events, classifying with RegEx and sending notifications.
- Built "Prometheus", a web service cluster consumers display platform to show the dependency relationships between clusters. Implemented it independently using Django, Bootstrap, MySQL, and Redis.

## RESEARCH EXPERIENCE & PROJECTS

### C DYNAMIC STORAGE ALLOCATOR | MALLOC LAB

2018.7 | 15513 Introduction to Computer System | CMU

- Implemented a general purpose dynamic storage allocator for C programs using segregated free list with FIFO strategy.
- Built own version of the malloc, free, realloc, and calloc C functions.
- By eliminating footers in allocated blocks, decreasing the minimum block size, and setting up special regions of memory for small, fixed-size blocks, achieved a high throughput 16838 Kpos/sec with 71.4% memory utilization.

### EYE OF PROVIDENCE | AN INTELLIGENT MONITORING SYSTEM

2017.5 | Hackathon SJTU 2017

- Led a group of 4 teammates to build an intelligent classroom monitoring system using face recognition, facial expression detection and speech identification techniques.

### SHORT PATH PADDING TECHNIQUE DESIGN

2016.7 – 2017.11 | Research Center of Digital Circuit Design & SoC | SJTU

- Designed and implemented a short path padding software employing integer linear programming method. Proposed innovative schemes to reduce 80.9% runtime of the algorithm and 52.3% hardware cost.
- **Publication:** Yongming Ding, Wei Jin, Guanghui He, Weifeng He. "Short Path Padding with Multiple-Vt cells for Wide-Pulsed-Latch Based Circuits at Ultra-Low Voltage." IEEE International Conference on ASIC (2017).

## HONORS AND AWARDS

- 1st Prize in 12th China Graduate Electronics Design Contest
- 3rd Prize in National Post-Graduate Mathematic Contest in Modeling
- 2nd Prize in Shanghai Region, National College Student Physics Competition
- 1st Prize in National Olympiad in Physics (Henan Province, China)