

# HUIDONG XU

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## EDUCATION

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**Shanghai Jiao Tong University (SJTU)**, Shanghai, China

Sep. 2019 – Present

B.S. in Software Engineering (SE), expected July 2023

Major Scores: 88.82 / 100, Major GPA: 3.81 / 4.3, Top 20%

## PROJECTS

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### **Tiger Compiler**

Mar. 2021 - Jul. 2021

- Tiger Compiler is a project compiler in reference to *Modern Compiler Implementation in C* (Tiger Book).
- It includes an abstract syntax tree, instruction selection independent of register allocation, copy propagation and prevention of dependencies on specific targets machine method.
- It can produce complete assembly code on X86-64 CPU.

### **Chfs File System**

Mar. 2021 - Jul. 2021

- Chfs is a distributed file system similar to Google File System (GFS).
- Based on Chfs, MapReduce was implemented that can count words on distributed systems via RPC calls.
- Based of Chfs, Raft (distributed, fault tolerance key-value store) was constructed.

### **Bookstore Website**

Feb. 2021 - Jan. 2022

- This is a native bookstore website built with Vue, Spring Boot and MySQL.
- It can provide basic function such as login, search books and make orders.
- I conducted performance optimization like Redis, Nginx and MapReduce.

### **Minik8s**

Mar. 2022 - Jul. 2022

- This is a mini container orchestration tool similar to Kubernetes, which can manage containers that meet the CPI interface on multiple machines, and supports basic functions such as container life cycle management and inter-container network communication.
- I led the team to design abstract classes such as Container, Pod, Service, and Dns.
- I led the network communication related work such as Container-Container, Container-Pod, Pod-Pod, Pod-Service, Service-Service, Dns.

## SKILLS

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- Programming Languages: C / C++, Python, Java, Matlab
- Tools: LaTeX, Markdown, MySQL, PyTorch
- Sports: Ping-pong, Badminton, Running, Soccer, Volleyball, Basketball
- Hobbies: Go (Amateur 2 dan), Debate (Member of the Debate Team), Robot Programming (First Prize in RoboMaster Intramural Competition)

## HONORS AND AWARDS

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|---|----------------|
| • Class Monitor   | 2019 - present |
| • Merit Student, Excellent League Member  | 2020           |
| • Chandler-Chi Family Scholarship, B-level School Scholarship   | 2020           |
| • The 2nd Prize of Contemporary Undergraduate Mathematical Contest in Modeling in Shanghai  | 2020           |
| • Electric Academy Heritage Fund Scholarship, B-level School Scholarship  | 2021           |
| • China Collegiate Algorithm Design & Programming Challenge Contest Gold Medal  | 2021           |
| • The 13th "Challenge Cup" National College Student Business Plan Competition Gold Award in Shanghai (Qualified for National Championships) | 2022           |

# 徐惠东

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## 教育

上海交通大学，上海

2019 – 至今

在读本科生 软件工程，预计 2023 年 7 月毕业

核心学积分：88.82 / 100，核心 GPA：3.81 / 4.3，前 20%

## 项目

### Tiger 编译器

2021 年 3 月 – 2021 年 7 月

- 参考《现代编译原理: C 语言描述》(虎书) 完成的 Tiger 编译器。
- 包含抽象语法树，独立于寄存器分配的指令选择，复写传播以及防止从属于特定目标机的方法。
- 能够生成完整的汇编代码。

### Minik8s

2022 年 3 月 - 2022 年 7 月

- 类似于 Kubernetes 的迷你容器编排工具，能够在多机上对满足 CPI 接口的容器进行管理，支持容器生命周期管理、容器间网络通信等基本功能。
- 带领团队进行 Container、Pod、Service、Dns 等抽象类设计与编码工作。
- 带领团队进行 Container-Container、Container-Pod、Pod-Pod、Pod-Service、Service-Service、Dns 等网络通信相关工作。

### Chfs 文件系统

2021 年 3 月 – 2021 年 7 月

- 类似于谷歌文件系统 (GFS) 的分布式文件系统。
- 基于 Chfs 实现 MapReduce 工具，通过 RPC 调用实现分布式系统上的单词数量统计功能。
- 基于 Chfs 实现 Raft (分布式、高容错的键值对存储)。

### Bookstore 网站

2021 年 2 月 – 2022 年 1 月

- 基于 Vue + Spring Boot + MySQL 的本地购书网站。
- 实现登录、查书、下单等基本功能。
- 使用 Redis、Nginx 和 MapReduce 等工具完成性能优化。

## 技能

- 编程语言: C / C++, Python, Java, Matlab
- 工具运用: LaTeX, Markdown, MySQL, PyTorch
- 运动技能: 乒乓球, 羽毛球, 跑步, 足球, 排球, 篮球
- 兴趣爱好: 围棋 (业余二段), 辩论 (院辩论队成员), 机器人编程 (RoboMaster 校内赛金奖)

## 荣誉

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| • 班长                                      | 2019 年至今 |
| • 校级三好学生, 校级优秀团员                          | 2020 年   |
| • 蒋氏奖学金, 校级 B 类奖学金                        | 2020 年   |
| • 全国大学生数学建模竞赛上海赛区二等奖                      | 2020 年   |
| • 电院校友传承基金, 校级 B 类奖学金                     | 2021 年   |
| • 2020-2021 年度第二节全国大学生算法设计与编程挑战赛 (春季赛) 金奖 | 2021 年   |
| • 第十三届“挑战杯”中国大学生创业计划竞赛上海市金奖 (已入围国赛)       | 2022 年   |