

ZEKUN FAN

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Education

Shanghai Jiao Tong University

Shanghai, P.R.China

B.S. IN SOFTWARE ENGINEERING

Sept. 2014 - PRESENT

- **GPA:3.84/4.30, Rank:6/104**, Awarded Xin Dong Principle Scholarship 2014
- Coursework: Introduction to Computer System(CS:APP), Operation System(MIT 6.828), Distributed System, Principles of Compiler, Computer Architecture, Digital Design and Computer Architecture, Database System, Data Structure, Algorithm, Computer System Engineering, Web Development, Software Engineering

Skills

Programming C/C++, Python, JAVA, MATLAB, Verilog, PHP, HTML/CSS/JS, Git

Communication Mandarin(Native), English(**TOEFL: 106, GRE: 323**), LaTeX

Research

Distributed system and cloud computing

Shanghai Jiao Tong University

SUPERVISED BY PROF.MINYI GUO

March 2017 - PRESENT

- Developed big data projects based on Apache Hadoop and Spark

Experience in Computer System

JOS: A tiny kernel for x86

Shanghai Jiao Tong University

COURSE: OPERATION SYSTEM (MIT 6.828)

March 2017 - June 2017(est.)

- Developing a linux-alike bootable kernel JOS on x86 architecture, including file system, shell and network driver
- Supports virtual memory, process, resource management and preemptive multitasking

Tiger Compiler Implementaion in C

Shanghai Jiao Tong University

COURSE: COMPILER PRINCIPLES

Dec. 2016

- Implemented a compiler for Tiger language executable on x86 in C
- Built from scratch individually: Lexicon(flex), Parsing(bison), Abstract Syntax Tree, Semantic Analysis, Intermediate Representation, Instruction Selection, Liveness Analysis, Register Allocation

FUSE Based Network File System

Shanghai Jiao Tong University

COURSE: COMPUTER ENGINEERING

Sept. 2016 - Jan. 2017

- Implemented an inode manager with provided block IO interface, and supported basic file operations by FUSE
- Support remote and concurrent access by RPC under separated file server and lock server
- Enhanced with erasure coding, able to discover and correct minor bit flips
- Support Log-based version control and user access control(rwx, chown) with OpenSSL

Computer System:A Programmer's Perspective Labs

Shanghai Jiao Tong University

COURSE: INTRODUCTION TO COMPUTER SYSTEM

Sept. 2015 - Jan. 2016, March 2016 - June

2016

- Bit-level Ops, x86 Assembly & GDB, Buffer Overflow Attack
- Y86 Assembler&Simulator, 5-level Pipelined y86 Processor
- Memory Allocator and Cache strategy designed for special accessing pattern
- Tiny Shell supporting bg,fg and signals, Socket-based HTTP proxy

Other Experience in Programming

Music Recommendation Mobile Application with Server and Sensor

Shanghai Jiao Tong University

INTEL CUP NATIONAL COLLEGIATE SOFTWARE INNOVATION CONTEST

June 2016 - August 2016

- Implemented a music player on Android which collects user heartrate and pedometer data from Microsoft Band and send to remote server to recommend related music
- Implemented a RESTful server with SpringBoot to support above feature
- Worked with Intel Edison Board, an extension solution to Arduino

Price Check crawler on JD, Tmall and Amazon

Shanghai Jiao Tong University

COURSE: PROGRAMMING PRINCIPLES AND METHODS

Dec. 2015 - Jan. 2016

- Implemented universal crawler interface with JD, Tmall and Amazon crawlers based on Requests and BeautifulSoup in Python
- Implemented GUI in PyQt4, manageable to end users

Online Bookstore

Shanghai Jiao Tong University

COURSE: WEB DEVELOPMENT

March 2016 - May 2016

- Implemented 1st version of online bookstore with PHP, MySQL and Apache
- Developed 2nd version of online bookstore in Java with Tomcat and SSH framework
- Utilized Bootstrap and Highcharts for front-end, supporting sales statistic to administrators

Water Depth Measuring Software with Depth Gauge Recognition

Shanghai Jiao Tong University

COURSE: COMPUTER VISION

Dec. 2016 - Jan. 2017

- Implemented in C++ based on OpenCV cascade classifier in group
- Support recognizing water depth with various photos which include water gauges

Various data structure implemented in C++ template

Shanghai Jiao Tong University

COURSE: DATA STRUCTURE

July. 2015

- Implemented B+ Tree, Red-Black Tree, AVL Tree individually