## **Yicheng Wang**

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**OBJECTIVE** 

To obtain a full-time position in software engineering or a related field. Available beginning May. 2016.

**EDUCATION** 

University of Michigan - Ann Arbor, Michigan

Sept. 2014 - May. 2016

Master of Science in Electrical & Computer Engineering

Current GPA: 3.70/4.00 Relevant courses:

EECS485 Web Database and Infomation System

EECS584 Advanced Database System EECS482 Introduction to Operating System EECS484 Database Management System EECS281 Algorithm & Datastructure Sept. 2010 - June. 2014

EECS493 User Interface Design

Fudan University - Shanghai, China

Bachelor of Science in Computational Physics

Major GPA: 3.55/4.00

Relevant Courses: C/C++ Programming, Introduction to Computational Physics

**PROJECTS** 

#### Network File Server

April. 2015

- Implemented a network file server with socket programming, client-server system, hierarchical file system and security protocols
- Enabled clients using file server to interact with it via network messages
- Used pthread lock to support multi-threaded feature

### ARIES - Database Recovery From Crash

April. 2015

- Implemented database recovery algorithm known as ARIES
- Designed and implemented function analyze, redo, undo as well as datastructures log, transation table, dirty page table for ARIES
- Simulated a crash and tested ARIES to let database recover from the simulated crash

### Basic Database Design for Fakebook

Jan. 2015

- Used ER diagram to design a basic database for a networking app
- Wrote queries to create, load and retrieve data with Oracle SQLplus for Fakebook database
- Used JDBC for Java to access this Oracle SQLplus database
- Observed how optimizer works using Postgres

### Thread Library & Disk Scheduler

Jan. 2015

- Implemented a thread library in terms of monitor for multi-threaded programming
- Used interrupt and guard to guarantee the atomicity inside kernal code and getcontext, makecontext and swapcontext to manipulate context of threads
- Used the implemented thread library to design an SSTF disk scheduler

# External Pager

Mar. 2015

- Implemented an external pager to allocate memory for applications
- Implemented fault handler to deal with read/write or page fault, designed clock algorithm to evict a virtual page from physical memory when page fault happens

### RESEARCH

### Topological Insulator Computation

Mar. 2014

- Designed dynamic programming algorithm for numerical calculation of energy band of Topological Insulator
- · Analysed and processed data with Matlab

### Bioinformatics & Computational Biophysics

Sept. 2014

- Studied Brown Motion of biological molecule by computer simulation
- Extracted specific gene information from raw files and processed the data via C++

### **SKILLS**

Programming: C/C++, SQLplus, Matlab, Java, HTML/CSS and Python

Applications: Github, Vim, Sublime, LATEX and Microsoft Office

Platforms: Windows, GNU/Linux and Mac OS X Languages: Fluent in Chinese and English