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
EECS493 User Interface Design
EECS484 Database Management System
EECS281 Algorithm & Datastructure

Fudan University - Shanghai, China Sept. 2010 - June. 2014
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, transaction 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 pimpl to add data/functions for a class without changing that class's header file
- 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++, SQL, 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