Delin(Catlyn) Kong

Tel: (734)926-6918
Email: kongdl@umich.edu
Address: 1760 Broadway St. Ann Arbor, MI 48105

EDUCATION

University of Michigan, Rackham School 09/2016-Present
- Master of Science in Signal Processing & Machine Learning GPA:3.85/4.0

Sun Yat-sen University, (SYSU) School of Physics and Engineering 09/2012-06/2016
- Bachelor of Science in Electrical and Computer Engineering GPA:3.82/4.0

PROJECTS

B+ Tree Implementation 03/2017
- Implemented a B+ Tree that support insertion, deletion and search range.
- Realized merge, redistribute and split functionalities of both leaf nodes and inner nodes.

Memory Manager Design 03/2017
- Implemented a pager that realize system calls that applications can use to create, copy, and destroy address spaces, allocate space in an existing address space, and switch between address spaces.
- Utilized page table to map virtual memory to physical memory and clock algorithm for eviction of pages .

Thread Library Design 02/2017
- Implemented a thread library that provides user with mutex, condition variable and interrupt using ucontext.
- Designed a shortest seek time first disk requests scheduler using the thread library.

Search Engine Design 12/2016
- Built an integrated, user-driven web search engine which can customize to each user's searching habits.
- Used Hadoop's MapReduce to generate term indexes (tf-idf factor) given vast amount of data.

MapReduce Server Development 11/2016
- Implemented a server that support all kinds of MapReduce executables using multi-process and multi-thread.
- Realized communication between master and workers using TCP and UDP sockets.
- Added fault-tolerance thread and heartbeat thread to enhance the reliability of the server.

Web Application Development 09/2016
- Developed a dynamic and reliable online photo service for multiple users to store, update and review pictures.
- Introduced Python Flask to implement REST API and JavaScript to fetch data to reduce latency and enhance user experience. Conducted front-end design with HTML and CSS.
- Added encrypted authentication process and maintained session to protect user information.

RESEARCH EXPERIENCE

***Research Assistant*, 3D Modeling Technology Based on Kinect** 10/2014
- Generated 3D Model of given object and add gesture control to it using Kinect V2.
- Optimized algorithms to reduce false recognition rate and perfect the system.

AWARDS

- Outstanding Graduate, Sun Yat-sen University 06/2016
- First-class Scholarship, Sun Yat-sen University 09/2015
- Meritorious Winner, MCM, COMAP(Consortium for Mathematics and Its Applications) 02/2015

SKILLS

- Languages: **Java**, **Python**, **SQL**, C++, HTML, Matlab
- Tools: **Hadoop**, **MapReduce**, Git, Eclipse, Visual Studio
- Platforms: Windows, Mac OS X, Linux