JIULIANG XU

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EDUCATION

University of Michigan Ann Arbor, MI
Master of Science in Electrical and Computer Engineering *Dec.2017*
Signal Processing and Machine Learning Minor
GPA: 4.0/4.0
Courses: Database Management, Operating Systems, Web Database Management, Artificial Intelligence

Sun-Yat Sen University Guangzhou,China
Bachelor of Science in Electrical and Computer Engineering *Jun.2016*
GPA: 3.8/4.0
Courses: Data Structures, Linear Algebra, Signal Processing and Systems, Numerical Computation Methods

PROJECT EXPERIENCE

University of Michigan Ann Arbor, MI
Operating System Infrastructure Development *Jan.2017-Now*
·Implemented a thread library which provides interface for applications and a pager which manages application processes' virtual address spaces.
·Used low-level atomic operations provided by hardware to realize high-level synchronization operations.
·Implemented copy-on-write for our pager to minimize the number of disk I/O.

University of Michigan Ann Arbor, MI
Search Engine Development *Oct.2016-Dec.2016*
·Built a user-driven search engine which enabled users to customize their search results between page relevance (tf-idf) and page importance (PageRank).
·Designed a search engine API based on PageRank and inverted-index computed using MapReduce.
·Connected the API with a search interface server written by Python Flask.

University of Michigan Ann Arbor, MI
Distributed System Design *Oct.2016-Dec.2016*
·Designed a MapReduce server using multi-processes, multi-threads and sockets to support all kinds of MapReduce implementations for Big Data computation.
·Implemented a single master and multi-workers framework with TCP and UDP as means of communication to realize a powerful computing server with low cost and high reliability.
·Cooperated closely with teammates, greatly improved my ability of cooperation.

University of Michigan Ann Arbor, MI
Web. Application Development *Sep.2016-Nov.2016*
·Developed and implemented a quick and reliable online photo service for users to store, review and search pictures.
·Used Python Flask to build API supporting Client-Server interaction and used Javascript to implement client-side dynamic pages to reduce the latency of the application.
·Maintained a server-side database to manage information and sessions to ensure consistency.
.Worked efficiently with groupmates to build the website, improve my teamwork ability and communication skills.

EXPERIENCE

Sun-Yat Sen University Guangzhou,China
Software Development-Research Assistant *Jun.2015-May 2016*
·Developed a 3-D virtual keyboard which detected finger motions as input but required no touching, providing a deeper interaction with computers with various practical applications.
·Realized real-time data extraction from movement detection camera and real-time control of the keyboard with a C++ control program.
·Created user interface using OpenCv to realize the last step of human-computer 3-D interaction.

COMPUTER SKILLS

Platforms: Linux, Mac OS X, Windows
Software: Oracle, Microsoft Office, Matlab (1 year), Hadoop
Languages: Java (2 years), Javascript (half year), Python (1 year), C++ (half year)

AWARDS

·The First-class Scholarship for Outstanding Student (Sep. 2015)
·The First-class Scholarship for Outstanding Student (Sep. 2014)