

Lingduo Kong

Software Engineer
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EDUCATION

UNIVERSITY OF CHICAGO

M.Sc IN COMPUTER SCIENCE

Dec 2015 | Chicago, IL

GPA: 3.4/4.0

SUN YAT-SEN UNIVERSITY

BS IN TRANSPORTATION

Jun 2014 | Guangzhou, China

College of Engineering

GPA: 3.6 / 4.0

CONTACT

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COURSEWORK

GRADUATE

Big Data

Compiler

Web Development

Object Oriented Design

Unix & Linux

UNDERGRADUATE

Networks

Image Processing

Computer Graphics

Computer System

Data Structure & Algorithms

SKILLS

PROGRAMMING

Over 5000 lines:

Java • Ruby on Rails • JavaScript

Over 1000 lines:

HTML • CSS • Object C

Familiar:

AWS • Git • MongoDB • MySQL

Apache Camel • Apache Bench

Big Data:

Hadoop • MapReduce • Storm

Apache Kafka • HBase • Pig & Hive

EXPERIENCE

HEALTHENGINE LLC | SOFTWARE ENGINEERING INTERN

Jun 2015 – Sep 2015 | Chicago, IL

- Built an on-line customer service center with Ruby on Rails and deployed the app with Passenger and Apache on AWS. Created a website for monitoring live calls, recording call history and generating statistics reports.
- Decreased the 75% of catching up delay and reduced 90% of answering failure for customer service.
- Was able to handle 200 QPS (query per second) according to Apache Bench which was 2 times of current system requirement

COMPUTING INSTITUTE (UNIVERSITY OF CHICAGO) | WEB DEVELOPER

Feb 2015 – Jun 2015 | Chicago, IL

- Displayed Graph data module with JavaScript D3 and accomplished a single page application with AJAX based on LAMP (Linux,Apache,MySQL,PHP).
- Build a comment line tool with Github API and Trello API in Ruby. Helped developers adjust and fix reported issues from Github, mark achievement and reschedule teamwork by Trello automatically.
- Saved 80% time to report the progress of assignments and rearrange time line.

PROJECT

NBA DATA ANALYZER Sep 2015 - Nov 2015 | Chicago, IL

Extracted and cleaned the raw NBA data for matches and players by bash script, then serialized and stored them to HDFS (Hadoop Distributed File System) in Java. Data was calculated by Pig and result is stored in HBase.

Graped NBA newest match data from RSS feed and posted it to Kafka by Java. Built a Storm Spout to consume Kafka messages and used one Storm Bolt to parse messages and another one to update HBase table.

Used Perl and CGI web service to query and display matches and player analysis.

BOOK RECOMMENDATION SYSTEM Dec 2015 - Jan 2015 | Chicago, IL

Implemented a book generic system to categorize books according to their descriptions in Java. Read CSV files for genre and book JSON file, stemmed each word by Porter2 Stemmer and built inverted index table for each word. Calculated similarity factors and recommend books to readers. Process 10000 books with less than 10MB memory.

C COMPILER Sep 2015 - Dec 2015 | Chicago, IL

Created a C compiler with Java using JFlex and CUP libraries. Implemented Laxer with JFlex, Parser with CUP and generated assembly code based on X86 instructions. Finished a stack machine based compiler as a prototype, used registers to optimize and made it 3 times faster than before.

MINI TRADING ENGINE March 2015 - Jun 2015 | Chicago, IL

Implemented a distributed trading system with automatic deal report and statistics calculation in Java and Apache Camel.

Sorted each request by price, time and quantities and used heap to make trading matches. Ask, bid and make a deal by inserting CSV messages to trading heap.

Be able to handle 1000 trading messages per second by a PC.