

Yuxin Zhang

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WORK EXPERIENCE

Software Engineer, Holistic Lab Inc.

Aug.2017 - Present

- Contributed in IOT data storing and analyzing platform with Java Spring Framework and OpenWrt Platform
- Cloud Side:
 - Helped design Data Streaming Distribute System using Kafka Data Streaming Cluster, Cassandra DB Cluster, Redis Remote Cache Cluster with Spring Boot Servers
 - Generated latest big picture of network by merging data from multiple DB in synchronous way
 - Delivered algorithm to get network topology from the simple network and the complex mesh system
 - Created RESTful APIs to fetch profile info or send verifications through email
 - Built responsive website components based on MVC using HTML, CSS and JavaScript
- Smart Agent Side:
 - Utilized OpenWrt Linux Tool, e.g. *uci*, *dnsmasq*, *wlanconfig* and *iwinfo* to read data from client
 - Customized algorithm to make it compatible with Windows, Linux and macOS
 - Filtered and merged local data using C libraries and Bash scripts to reduce network load
 - Designed easy scaled data structure in JSON which required minimal changes in the cloud

Software Engineer Intern, P.I.N.G. Inc.

Jun.2017 - Jul2017

- Developed a Windows Desktop Application in C# which records system activities to distinguish working, entertainment or idle time to analysis productivity with AWS server and MongoDB
- Refactored data structure to remove 40% redundant data which saved network resource and simplified code base
- Designed and delivered a backup/recovery strategy to *catch* critical data in case of server or network failure
- Collaborated with UI/UX designer to deliver a user-friendly and responsive UI with smooth user experience

Research Assistance, Optical Lab, Harbin Institute of Technology at WeiHai

Oct.2014 - Jul.2015

- Joined Project Optical-Fiber Taper Machine used SCM to build embedded control system to connect 4 main parts with 16 I/O ports and programming algorithm with C to convert 20 parameters to shape Optical fiber
- This machine has the same performance as a lab used machine with the price about 10 000 RMB

PROGRAMMING EXPERIENCES

Chatting APP and Network Routing - Based on Linux, University at Buffalo

Spring 2016

- Maintaining fault-tolerant system using gossip protocol and SWIM to detect status and manage server connection
- Deployed Command-Line based message and file exchange application on servers and clients using socket programming to build TCP/UDP connections in C++
- Utilize Distance Vector Protocol with topology table to boost routing speed by 30%
- Used Wire Shark to monitor network connection, maintained a Database to save and backup statistics of user status, server load, send messages, and transferred files, etc.

EDUCATION

University at Buffalo, The State University of New York (Aug. 2015 - Dec. 2016)

Master of Science, Electrical Engineering, Concentration in Communication

GPA: 3.67/4.0

Harbin Institute of Technology at Weihai (Sep. 2011 – Jul. 2015)

Bachelor of Science, Optical Information Technology

GPA: 3.6/4.0

SKILL SET

Java, Spring, Spring Boot, C, C++, Linux, Ubuntu, OpenWrt, DNS, SQL, Cassandra, NoSQL, MongoDB, Node.js, HTML, CSS, JavaScript, PHP, RESTful API, C#, WPF, .NET, Chrome Extension, MVC, Kafka, Redis, GIT, GitHub, Subversion.