

Peiyuan Qi

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EDUCATION

University of Southern California

Master of Science in Computer Science

Los Angeles, CA

Aug 2018 – May 2020

Shanghai Jiao Tong University

University of Michigan – Shanghai Jiao Tong University Joint Institute (UM-SJTU JI)

Shanghai, China

GPA 3.6/4.0

Bachelor of Science in Electrical and Computer Engineering

Sept 2014 – Aug 2018

2017 Spring Exchange Student at Case Western Reserve University EECS Department, Cleveland, OH

GPA 4.0/4.0

Selected Courses: Advanced Operating Systems; Analysis of Algorithms; Distributed Systems; Computer Networks; Programming Language Concepts; The Principles of Database System; Intro to Computer Organization; Structuring Machine Learning Projects.

PROFESSIONAL EXPERIENCE

Intel Asia-Pacific Research and Development Ltd.

Shanghai, China

Software Engineering Intern in Analytic Storage Team

May 2018 – Aug 2018

- Created two HAS for Apache Kerby command line tool in Java involving Adapter Pattern and accepted by the community;
- Improved RESTful API design for Hadoop Authentication Service admin access;
- Implemented Hadoop Smart Storage Manage integration automated test scripts using Python.

NVIDIA Semiconductor Technology (Shanghai) Co., Ltd.

Shanghai, China

Infrastructure Software Internship

Aug 2017 – Apr 2018

- Designed a Perl Object Oriented Module to post more than 140,000 GPU simulation data per day to Elastic Search;
- Visualized posted data using Kibana and analyzed the trend of error data to support the debugging process;
- Devised and delivered a Python package for Elastic Search data retrieve and data manipulation;
- Constructed an auto-detecting and reporting commands error function module of GPU simulation software;
- Applied doc2vec and WMD algorithms to perform the software Bug Triage tasks to improve team debugging efficiency.

SELECTED PROJECTS

International Programs Application and Management System, A Full-Stack Website Project

Apr 2018 – Aug 2018

- Developed the online system for UM-SJTU JI based on Laravel with around 1000 users;
- Implemented OAuth2 login, application submit and review, admin user management, automatic email notification functions;
- Designed the database patterns including many-to-many, one-to-many associations to support application needs;
- Created the user interface of user/admin dashboard to achieve user friendly interactions with Ajax.

Medicinatio.xyz, A Full-Stack Website Development Project

May 2018 – Jun 2018

- Developed an online Chinese question-and-answer social network website using WeCenter Framework individually;
- Improved WeCenter Framework based on Zend Framework to meet the project requirements and deployed on server.

TouchMore iOS and macOS Applications

Apr 2017 – May 2017

- Published an iOS and macOS application to provide Numeric and shortcuts keypad with MultipeerConnectivity Framework.

SELECTED COURSE PROJECTS

JOS Kernel Development in C

Aug 2018 – Present

- Implemented the memory initializing, exception and interrupt trapping on x86 machine an Exokernel named JOS individually;
- Constructed the fork, process preemption, inter-process communication mechanism on JOS.

Distributed Transaction Settlement System

Jun 2018 – Jul 2018

- Achieved a Distributed Transaction Settlement System based on Hadoop and Spark Streaming in a group of three;
- Created a currency server maintained by Zookeeper updated by three concurrent threads;
- Implemented the backend storage in MongoDB and dealt incoming concurrent transactions with Kafka.

Java/C-ish Interpreter Supporting Function, Class, Inheritance & Polymorphism Features

Mar 2017 – May 2017

- Developed an interpreter to interpret a language in a group using Racket, a functional programming language.

Network Application Layer Protocol Implementation in C

Apr 2017

- Designed an application layer protocol for server and clients to communicate and implemented with socket programming.

SKILLS

Java, Python, C++, C, Perl, PHP, Swift, SQL, Hadoop, Apache Kafka, Elastic Search, Spark Streaming, Zookeeper, Laravel.

CAMPUS ACTIVITIES

Intelligent Internet of Things Research Center

Shanghai, China

Undergraduate Research Assistant

Jun 2017 – Apr 2018

- Doubled the concurrent database query speed for Acemap, an academic database;
- Developed an Interdisciplinary Mentor-Student Recommendation System as a team with K-Mean clustering algorithm;

UM-SJTU JI

Shanghai, China

Teaching Assistant

Sept 2015 – Aug 2017

- Teaching Assistant of Introduction to Logic Design, Honor Calculus IV, Calculus IV, Honor Calculus I and Tech Comm.