Peiyuan Qi

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EDUCATION

University of Southern California, Los Angeles, CA — GPA 3.75/4.0
Master of Science in Computer Science — *Aug 2018 – May 2020*

Shanghai Jiao Tong University, Shanghai, China — GPA 3.6/4.0
University of Michigan – Shanghai Jiao Tong University Joint Institute (UM-SJTU JI)
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; Foundations of Artificial Intelligence; Distributed Systems; Mobile Games; Computer Networks; Programming Language Concepts; The Principles of Database System.

PROFESSIONAL EXPERIENCE

Electronic Arts (EA) Inc. — Redwood City, California, USA
Software Engineering Internship in EA Data Platform and Artificial Intelligence Team — *May 2019 – Present*
- Migrated data collection pipeline into Amazon Elastic Container Service for Kubernetes;
- Designing autoscaling mechanism for server cluster to achieve budget saving purpose.

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;
- Devised and delivered a Python package for Elastic Search data retrieve and data manipulation with RESTful principles;
- 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 COURSE PROJECTS

Happy Contra, an iOS Mobile Game — Jan 2019 – May 2019
- Designed and developed a mobile run-and-gun 2D platformer game with Unity game engine.

JOS Kernel Development in C — Aug 2018 – Nov 2018
- 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;
- Completed network driver for sending and receiving packets with emulated E1000 in QEMU.

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 with 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 Scheme, a functional programming language.

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 with Object-Oriented Design Principles;
- 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.

SKILLS

C++, Java, Python, C, Perl, Scheme, Kubernetes, MySQL, Hadoop, Kafka, , Spark Streaming, Zookeeper, AWS ECS, MongoDB.

ACTIVITIES

HackTech 2019 — Pasadena, CA
2019 Best Hack that Acts on the Physical World - Sponsored by Uber — Mar 2019
- Developed a user health data monitor and automatic alarm system based on Uber API and Fitbit health kit.

Intelligent Decision Making (IDM) Lab — Los Angeles, CA
Graduate Research Assistant — *Jun 2019 – Present*
- Implemented multi-agent path finding solution with conflict-based search python class for hierarchical path plan.