

QIN (QUENTIN) MIAO

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EDUCATION

UNIVERSITY OF WASHINGTON (UW) – SEATTLE

Sep. 2017 – Mar. 2020

- Bachelor of Science, Computer Science (GPA: 3.83)
- Coursework (*through Autumn 2019*): Computer Security, Machine Learning, Distributed Systems, Networks, Databases, Computer Graphics, Algorithms, System Programming, Hardware & Software Interface, Software Design & Implementation, Data Structure & Parallelism, Programming Languages

QUALIFICATIONS

PROGRAMMING SKILLS

Languages: Java, C++, C, Python, JavaScript, HTML, CSS, SQL

Tools: Git, Linux, windows

PROJECTS

DISTRIBUTED KEY/VALUE SERVICE SYSTEM (JAVA)

Apr. 2019 – Jun. 2019

- Designed a scalable distributed key/value store system based on Paxos with fault tolerance
- The general architecture shares a similar pattern with several storage systems such as *Bigtable* and *Spanner*
- The storage can be scaled and sharded into arbitrarily many Paxos server groups with automatic reconfiguration
- In the presence of communication loss and server crashes, the system is still capable of handling numerous multi-key transactions and it guarantees linearizability of operations using two-phase commit. Under the stress test with 1/3 server failure and 1/4 message loss, the system can still reach 65% efficiency compared with the perfect condition

ANIMATOR (C++)

May 2019 – Jun. 2019

- Designed a 3D modeling software that supports model rendering and animation in a team of two
- Wrote plentiful features from scratch for this project: anti-aliasing, texture mapping, ray tracing, customizable lights, reflection and refraction rendering, collision detection, common physical forces, movement control, etc.
- The animation we created using the animator software won the second prize of the class:

<https://courses.cs.washington.edu/courses/cse457/19sp/projects/animator/artifacts/>

WORK EXPERIENCE

SOFTWARE ENGINEER INTERN | ASIAINFO | NANJING, CHINA

Jul. 2018 – Aug. 2018

- Self-learned SSM framework, dug into a 100MB code base and successfully fixed several known bugs in CTD BSS (“Click To Dial Business Support System”) designed for China Unicom
- One of the bugs fixed previously lead to more than 20,000 minutes call duration loss per month
- CTD BSS is used to manage business operations towards customers. Now it is supporting more than 70,000 customers and 30,000,000 minutes call duration monthly

WEB DEVELOPER INTERN | SONGCHEN TECH CO. | YANGZHOU, CHINA

Jun. 2017 – Aug. 2017

- Provided solutions to problems encountered in the Project Operation Audit & Management Website System designed for Yangzhou Electric Power Supply Bureau with self-learned JavaScript, HTML, CSS knowledge
- Added IE 8 Explorer friendly features such as multiple pictures previewing, compressing, uploading system, and tested the compatibility with several web browsers
- It is supporting all construction projects (17 in total by 2018) initiated by Yangzhou Electric Power Supply Bureau