

Tianyu Du

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EDUCATION

Santa Clara University

Master of Science in Computer Science and Engineering GPA: 3.94/4.00

Santa Clara, CA

Sep 2019 - Mar 2021

Minzu University of China

Bachelor of Engineering in Computer Science GPA: 3.21/4.00

Beijing, China

Sep 2010 - Jun 2014

RELEVANT COURSES

Analysis and Design of Algorithms, Cloud Computing, Distributed System, Database System Principle, Computer Architecture, Operating System, Data Structures, Software Engineering, Computer Networks, Machine Learning

SKILLS

Programming Languages: Java, Python, SQL, C, C++, JavaScript, PHP

Technologies: Linux, Git, Amazon Redshift, Amazon QuickSight, Socket Programming, Selenium

WORK EXPERIENCE

Amazon

Software Development Engineer Intern

Virtual Location, CA

Jun 2020 - Sep 2020

- Developed graphic and interactive dashboards to show App engagement data through Amazon QuickSight, providing visuals for engineering team to validate service changes in operational review
- Improved customer experience by determining a well-organized dashboard layout, shortened data loading time via using QuickSight SPICE and reducing the calculations on client side, also introduced proper filter controls to present interactive dashboards for customizations when viewing
- Optimized the design of workflow to ensure the flexibility to expand the dashboards and built up a pipeline to create Firehose Delivery Stream via a CloudFormation template, which was portable for future use
- Migrated and backfilled the data to present the dashboards with continuous changes reflected properly
- Onboarded quickly to manage the project progress and finished the baseline project two weeks in advance
- Took high-level of ownership to have a good understanding of existing architecture and project goals
- Showed initiative to build up an efficient communication to proceed my virtual internship and collaborated with my manager and teammates to overcome the project obstacles, which earned high praise for my enthusiasm

Clarif FileMaker, an Apple subsidiary

Software Quality Assurance Engineer

Beijing, China

Jul 2014 - Sep 2019

- Created and executed test plans and test cases for 10+ features which powered the consistent behaviors for FileMaker developers and FileMaker users, covering 4 FileMaker products
- Expanded the library and test cases of a Python Selenium automation suite to execute basic checks for every new build as well as to regress specific bugs, which saved days of repeating manual effort each time
- Reproduced a critical customer issue in-house by digging out the unwritten configurations, which influenced the Spanish language users of WebDirect, easing the escalation of customers complaints
- Exceeded the expected performance by contributing the greatest number of valid bugs in my team
- Maintained a close relationship with team members in China and US to ensure a fruitful collaboration

PROJECT

Optimized Load Balancing in Cloud Computing (Santa Clara University)

Apr 2020 - Jun 2020

- Designed and implemented an optimal cloud load balancer by adding the bucket concept into the Power-of-Ten to enlarge the search space and to reduce the randomness
- Evaluated the performance using Cloud Analyst and verified this optimized approach achieves a shorter max processing time by 98% compared to original Power-of-Ten
- Led the team to deliver the high standard project and was rated by the professor as one of the best projects in that class for the novel idea and measurable results