Tianyu Du

San Jose, CA

tdu@scu.edu | (408) 242-2874
linkedin.com/in/alice-du-tianyu

EDUCATION

Santa Clara University   Santa Clara, CA
Master of Science in Computer Science and Engineering GPA: 3.94/4.00   *Sep 2019 - Mar 2021*

Minzu University of China   Beijing, China
Bachelor of Engineering in Computer Science GPA: 3.21/4.00   *Sep 2010 - Jun 2014*

RELEVANT COURSES

Analysis and Design of Algorithms, Operating System, Computer Architecture, Data Structures, Cloud Computing, Distributed System, Database System Principle, 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   Virtual Location, CA
Software Development Engineer Intern   *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 weekly operational review
- Added 26 new metrics via executing SQL statements in a **Python** script to monitor the changes of engagement data on regular basis, enriching the data interpretation on the metadata collected in Redshift
- Designed a workflow to ensure the flexibility to easily expand the dashboards and built up a pipeline to create Firehose Delivery Stream via a CloudFormation template, which was portable for future use
- Improved customer experience by determining a well-organized dashboard layout, shortened data loading time via using QuickSight SPICE and minimizing the calculation on client side, also introduced proper filter controls to present interactive dashboards for data customizations on 5 criteria
- 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

Claris FileMaker, an Apple subsidiary   Beijing, China
Software Quality Assurance Engineer   *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 using **Java** by adding the bucket concept into the Power-of-Ten to enlarge the search space and to reduce the randomness, which achieved 98% shorter max processing time by 98% compared to original Power-of-Ten via simulation in Cloud Analyst
- 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