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 Systems, Software Engineering, Computer Networks, Machine Learning

SKILLS

Programming Languages: Java, Python, SQL, C, C++, JavaScript, JSON, XML
Technologies: Linux, Git, Troubleshooting, Agile, Relational Database, Web Programming, Object-oriented Programming, Multi-threaded Programming, Synchronization, HDFS, AWS(Redshift, S3, Kinesis)

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 visualizations 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, enhancing data interpretation on the metadata stored in Amazon Redshift
- Delivered the aggregates from DJS script to Redshift via a Kinesis Firehose stream, minimizing the data size to store and computes performed in QuickSight to load data quickly
- Designed a workflow to ensure the flexibility to easily expand the dashboards and built 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 with 6 filter controls to present interactive dashboards for various data customization requirements
- 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 to deliver high quality products, covering 10+ features across 4 FileMaker products which powered the consistent behaviors for FileMaker developers and FileMaker users
- 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
- Troubleshot the reproducible steps of a critical customer issue in-house to ease the escalation of complaints of Spanish language users of FileMaker WebDirect via digging out the hidden setup
- 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

JAVA PROJECTS

Santa Clara University   *Apr 2020 - Jun 2020*

- **Cloud Load Balancer:** Optimized Power-of-Ten approach achieved shorter max processing time by 98%
- **Message Broker:** High available message queueing with backup restoration and wildcard matching on topics
- **Distributed Pub/Sub System:** Scalable P2P overlay structure to disseminate messages in Gossip Protocol