Sherry Zhuang

Consultant

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SUMMARY

Ms. Zhuang brings over 5 years of experience as a Project Engineer, specializing in systems integration and test of fare collection devices. She has extensive experience in managing the setup, configuration, and operation of fare collection systems, ensuring seamless integration with existing infrastructure.

With a proven ability to collaborate across technical teams, Ms. Zhuang regularly interfaces with front-end and back-end software developers, as well as third-party vendors and frequently leads customer-witnessed workshops to showcase the end-to-end capabilities of fare collection and payment systems. In addition, she also delivers production software releases for critical firmware components, including key management and physical security features, and oversees the integration of new subsystems into legacy solutions.

Sherry is proficient in writing and optimizing SQL queries to retrieve, manipulate, and manage data from relational databases and is also highly skilled in working with Linux and Unix-based operating systems. She is an expert in HTML for creating web page structures and CSS for styling and layout. Furthermore, Ms. Zhuang is well-versed in using Postman for API testing, debugging, and documentation to provide comprehensive evaluations of open architecture solutions for transit agencies.

PROJECT EXPERIENCE

2024 – Present

Automated Fare Collection (AFC) 2.0 Implementation, Massachusetts Bay Transportation Authority (MBTA), Boston, MA

Leading the Fare Vending Machines (FVM) workstream for MBTA, Mrs. Zhuang oversees defect monitoring and resolution through direct collaboration with the vendor. She conducts hands-on testing of FVMs to confirm the effectiveness of updates, ensuring reliable operation across multiple software iterations. In addition, Sherry evaluates test plans and approves test cases that align with MBTAs project timelines and requirements.

Ms. Zhuang supports the Interactive Voice Response (IVR) system through extensive testing of its features, including account inquiries and payment options, to ensure accessibility for all riders. By identifying environment-specific issues and facilitating resolutions with the vendor, Sherry enhances the IVR's usability for diverse groups of travelers. As a CCG consultant, she explores a range of customer interactions, refining the system in hopes of exceeding user expectations.

By contributing to Key Performance Indicator (KPI) initiatives, Ms. Zhuang assesses device performance metrics, such as availability rates, hardware failure frequencies, and maintenance work order durations. She develops formulas and scripts to consolidate and visualize KPI data, enabling stakeholders to make informed decisions on monthly KPI health. As part of the Clevor team, she plays a key role in improving review processes and streamlined monthly KPI analyses.

2024 – Present

Purple Line Fare System, Maryland Transit Administration (MTA), Baltimore, MD

The MTA hired CCG to provide fare system consulting, fare policy and revenue planning services for the Purple Line Expansion–a 16.2-mile light rail line being built as a Public-Private Partnership to link

	several Maryland suburbs of Washington, D.C. Ms. Zhuang contributes to the MTA Purple Line project by participating in the preliminary and intermediate design review phases, where she evaluated key documents, including the Concept of Operations (ConOps), system interfaces, and hardware specifications. Sherry's feedback provided enhanced document clarity and readability, ensuring alignment with MTA's project requirements. Her primary focus with the team, in support of MTA's fare collection goals, is on the large-scale project centered on the validation and ticket vending machine system. She also plays a role in solutions architecture for back-office functionalities, focusing on device health monitoring, networking infrastructure, and third-party integrations.
2022 – Present	**Ventra 3.0 Back Office Integration, Chicago Transit Authority, Chicago, IL** As part of her role, Ms. Zhuang trained Test Engineers on proper test procedures covering the functionalities of validators and ticket vending machines. She also led test case reviews, approved test plans and finalized submittals to the customer for customer sign-off. To establish improved automated monitoring rules for various device types, Sherry coordinated with the Maintenance and Operations Team, where she also oversaw asset management and organization of all test devices in ServiceNow and Back Office applications. Ms. Zhuang worked with Software Engineers to determine the most optimized design for the CAD/AVL bus validator system. The solution incorporated multiple fallbacks in event of connectivity issues, including GPS-based location extrapolation performed by offline-capable microservices. She experimented hands-on with deployment configurations to boost performance and efficiency of the completed features.
2024 – 2025	**PRESTO Transition Support, Toronto Transit Commission, Toronto, CA** While supporting the TTC PRESTO Transition project, Sherry was involved with a comprehensive system upgrade, including integration of new devices while retaining select legacy hardware components. She engaged in the design review process for a range of fare collection components, including transaction processors, point-of-sale devices, inspection devices, mobile fare payment application, fare vending machines, and faregates. Her input was instrumental in maintaining compatibility between the upgraded system and existing infrastructure while meeting TTC's modernized fare payment standards, facilitating a smooth transition for riders.
2020 – 2022	**Automated Fare Collection (AFC) 2.0 Testing, Massachusetts Bay Transportation Authority (MBTA), Boston, MA** As a Cubic Test Engineer, Sherry led test demonstrations for MBTA to witness while ensuring test execution adhered strictly to requirements. She conducted hands-on field-testing using system test packages and exploratory scenarios, validating features across fare media types and device conditions. Her efforts confirmed sufficient test coverage and compliance with MBTA's acceptance criteria.
2020 – 2022	**Interoperability Testing, Massachusetts Bay Transportation Authority (MBTA), Boston, MA** Ms. Zhuang coordinated joint integration testing among MBTA, Cubic, and subcontractor S&B within the Model Office environment. She triaged defects, ensuring timely resolution by the appropriate contractor, and tracked test execution across all parties to verify readiness for production deployment. Her efforts supported multi-vendor system cohesion and enhanced operational stability.

WORK HISTORY

2024 – Present

Consultant, Clevor Consulting Group

Ms. Zhuang was hired by CCG in 2024 to further enhance the technical team and expand hardware and software expertise at Clevor Consulting Group. She has been supporting various projects, such as system integration, environmental configurations, requirements development, testing, and more. Her experience in employing a range of testing methodologies to validate payment processing devices carries great value in supporting the agencies we work with.

2022 – 2024

Project Engineer, Cubic Transportation Systems, San Diego, CA

Ms. Zhuang established and managed the proper setup and environmental configurations of over 50 individual functional devices, facilitating engineering development and QA verification in a collaborative lab setting. She also interfaced with front/back-end software developers and third-party vendors to determine the most efficient solutions, addressing the issues identified through defect triages, customer feedback, and gap analyses.

As a participant in customer-witnessed demonstrations of the system's end-to-end operation, she supported business development and the procurement of contracts for new projects. Sherry drove the production software releases for project's firmware components–e.g., for key management and physical security–resulting in the commencement of factory acceptance and manufacturing. She oversaw the seamless integration of new subsystems into legacy hardware and existing systems, demonstrating readiness for a customer-approved transitional pilot phase.

2019 – 2022

Test Engineer, Cubic Transportation Systems, San Diego, CA

Ms. Zhuang employed a variety of testing methodologies spanning the Software Development Life Cycle, such as In-Sprint, Performance, and Regression, to validate various payment processing devices. She created comprehensive test plans that covered the scope of requirements from key capabilities to broader use cases. Ms. Zhuang also prepared for workshops and regularly demonstrated progress through formal compliance testing, ensuring results were documented in-depth for internal and external reference and evaluation.

Mentoring new team members–covering QA processes such as raising defects, as well as technical guidance with log analysis, troubleshooting using Linux scripting, and extracting data with SQL or APIs–was another great achievement of hers. Ms. Zhuang met critical deadlines and maintained a history of no significant defects uncovered in production.

EDUCATION

2018

Champlain College, B.S. Software Development

Ms. Zhuang made it onto the President's List and was also awarded the Trustee's Scholar Award.

2016

University of California, Santa Barbara, B.A. Biological Anthropology

Ms. Zhuang studied Biological Anthropology, with a focus on the evolution of humans, their variability, and adaptations to environmental stresses.