Toshi Forrest
Principal

Summary

Ms. Forrest has 15 years of experience designing, developing and implementing technology solutions for transit and transportation agencies. By leveraging her practical experience working in both the public and private sectors, Toshi collaborates effectively with agencies and vendors to implement technology solutions. She is a subject matter expert in fare collection solutions, having focused the past 7 years on major fare collection projects, as well as designing, developing, implementing, operating and maintaining mobile payment and validation/inspection solutions.

Ms. Forrest has broad transit technology experience including computer aided dispatch/automated vehicle location (CAD/AVL), fare collection, safety and security solutions.

Project Experience

Hop Fastpass® Fare Payment System, TriMet, Portland, OR, September 2013-Present
The Hop system launched in the summer of 2017, providing a bi-state fare collection system that provides riders with cutting edge technology and features. This project included several different vendors and partners working together to deliver different components of the system. Hop is an open architecture system using a common set of agency-controlled APIs to integrate equipment and systems from nine different vendors. The solution integrated fare inspection across mobile ticketing, closed-loop, contactless bankcard and mobile wallet payments into a single mobile app.

Toshi was the Technical Project Manager at TriMet, for the Hop Fastpass® implementation. Her core role included coordination between all selected vendors both internal and external to TriMet to deliver functionality that complemented and supported the Hop vision. She worked closely with the mobile app vendor and TriMet to design and implement a mobile fare inspection application that included single sign-on (SSO) across all agency applications.

TriMet Tickets, TriMet, Portland, OR, September 2013-May 2019
In 2013, TriMet publicly launched the TriMet Ticketing application, the first system-wide mobile ticketing application in North America. The system includes secure, animated and QR code-based mobile ticketing apps for both Android and iOS, forward looking features with a customer focused user experience. The project also included separate Android and iOS fare inspection applications for transit police and TriMet fare inspectors.

Toshi was the TriMet project manager responsible for the operations and maintenance of the system. She oversaw TriMet's Technical Customer Service, dedicated to first line technical support, coordination between TriMet Operations and IT departments, and worked directly with the mobile app vendor to address bugs, new features and major mobile device operating system updates.

ePOS Upgrade, TriMet, Portland, OR, September 2013-December 2018
In 2015 TriMet launched their upgraded, in-house developed point of sale system. This system was the

core application used at the TriMet retail store and allowed fare specialists to print personalized TriMet passes, sell TriMet fares and accessories, register discounted riders and fulfill employer/institutional transit benefit programs. The solution was built with forward-looking features to integrate into the future AFC solution (Hop) and also backwards compatibility with TriMet's existing programs. The upgrade included the replacement of all hardware components with zero disruption to existing operations.

As the project manager at TriMet for this project, Toshi worked directly with our internal clients and their unique operating environment to define requirements, manage rollout of updates, implement new systems and train all employees on the new system. Toshi also oversaw contractors making the physical changes to the retail store necessary to accommodate the new hardware needed to operate the new system.

FlexLA, LA, January 2018-March 2019
FlexLA is a partnership between moovel NA, FASTlink DTLA, a non-profit advocacy group, and LADOT, the local public transportation agency. FlexLA provides on-demand micro-transit service in the downtown Los Angeles region, supplementing transit service during their non-operational hours. FlexLA vehicles pick up and drop off customers at transit stops minimizing poor GPS/locating issues due to urban canyons in downtown LA for a flat fee during non-transit hours. The solution includes discounted rides for qualified individuals and flexible routes based on origin/destination of the shared rides. FlexLA launched in fall 2018 and includes backend on-demand technology and a mobile application that allows customers to book and pay for rides.

While at moovel, Toshi was the technical project manager responsible for coordinating across the different partners to implement the solution. She coordinated with stakeholders and developers across our European and North American offices to deliver their first US based on-demand technical suite of products. moovel provided all technology and marketing for the project.

Mobility on Demand (MOD) Sandbox, TriMet, Portland, OR, December 2017-February 2019
In 2017, TriMet received a grant from the Federal Transit Administration (FTA) to expand their existing trip planning application to include private mobility service providers, and to provide a framework for an integrated payment solution across transit and private mobility operators.

While at moovel, Toshi led development of MOD Sandbox Integrated Payment solution whitepaper. The integrated payment whitepaper includes general principles governing the design, potential limitations of the design, a high-level system architecture, and a high-level discussion of governance/ownership options to deploy the design into operation.

NITC Grant, TREC, Portland, OR, June 2018-Present
The National Institute for Transportation and Communities (NITC) funded a grant in 2018 to examine cashless fare collection technology and the effectiveness of equity mitigation strategies. This research

project is being conducted by Portland State University Professor and will provide two usability frameworks. The user framework will focus on convenience and various dimensions of access such as spatial proximity, understanding and knowledge, age, and access to Internet, smartphones and alternative banking services. The agency framework will incorporate various dimensions of costs – fixed costs of installation and capital, and recurring costs of maintenance and operations.

Toshi wrote the grant application securing the funding for the research project from NITC. She also led the development of the SOW for the research team and is the Technical Advisory Committee Chair, and is the primary point of contact for Principal Investigator team.

New Product Development, moovel NA, December 2017-May 2019
While at moovel, Toshi worked with Product and Engineering teams to bring new products to market, focusing on delivering proof of concept for new products and features. She also worked with agency partners to pilot new products allowing moovel to introduce them into their core product line. Working with a diverse cross sectional team, Toshi helped to align departments with the company strategy, and build new features/functions for products to provide effective solutions for moovel customers.

Work History

Principal, Clevor Consulting Group, June 2019-Present
In late spring 2019, Toshi joined Clevor Consulting Group as a Principal, blending her experience from the vendor, public transport and past consultancy roles to provide perspectives grounded in experience and real-world problem solving.

Program Manager, moovel North America, December 2017-May 2019
Led company strategy alignment across departments bringing new products to proof of concept. Project managed new product pilots and full system deployments. Worked closely with European developers and product teams to localize our European products for the north American market and vice versa. Developed strategy on working with external vendors and implemented product integration and partnerships with 3rd party vendors.

Fare Revenue Systems Manager, TriMet, September 2013-December 2017
Responsible for operations of fare collection technologies including electronic fare collection systems (including mobile ticketing and smartcards), fare validation and inspection applications, Ticket Vending Machine (TVM) software, onboard fareboxes, and the TriMet developed point of sale solution. Worked closely with all departments within the organization to maintain operations and communications to riders with minimal disruption.

Associate, IBI Group, November 2004-October 2013
An Associate at IBI Group, Toshi led ITS and transit technology planning, design and implementation projects for agencies across the United States and Canada. She was the project manager for CAD/AVL,

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CCTV, TSP and AFC projects for transit agencies, as well as leading communication design and traditional ITS projects for transportation departments.

Engineer, Castle Rock Consultants, October 2002-November 2004
Ms. Forrest developed ITS planning and concept of operations for public agencies focused on advanced traffic information and management solutions.

Education

B.S., Civil Engineering, Portland State University, Portland, OR, 2003
Ms. Forrest studied Civil Engineering, focusing on Transportation and Intelligent Transportation Systems.

Client References

Project: TriMet Hop Fastpass™ Project
Contract Budget: $35M
Employer and Role: TriMet, Project Manager
Client Contact: Rhyan Schaub, TriMet, Director of Fare Revenue and Administration, (503) 962-7540

Project: TriMet Tickets
Contract Budget: Commission based fee structure
Employer and Role: moovel NA, Account Manager
Client Contact: Courtney Longfellow, moovel NA, Delivery Product Manager, (971) 325-7688