Justin Vong

Consultant

EMAIL – justin.vong@clevorgroup.com
PHONE – (916) 896-7023

SUMMARY

Mr. Vong brings over 8 years of industry experience as a Consultant and Engineer. Justin developed and tested fare collection software for various major transit agencies. This includes both field devices and back-office components where he focused on upgrading intricate systems to meet modern-day transit requirements. His experience working on complex systems on a granular level carries great value to our technical team and in supporting the agencies we work with. Mr. Vong's experience working with various sectors has given him a broad understanding of transit's unique challenges and opportunities. He specializes in software development, requirements development, project management, and testing. Mr. Vong's diverse engineering experience is imperative to the technical services we offer to agencies that work with Clevor Consulting Group in managing the complexities of the transit payment industry.

PROJECT EXPERIENCE

2025 – Present	**Key 2.0, Southeastern Pennsylvania Transportation Authority, Philadelphia, PA** CCG is supporting SEPTA in upgrading its automated fare collection system. Mr. Vong is supporting SEPTA with their Building Access Control solution, ensuring a smooth transition for access control with their new Key 2.0 AFC system.
2023 – Present	**Automated Fare Collection 2.0, Massachusetts Bay Transportation Authority, Boston, MA** CCG is supporting the MBTA in the process of replacing its Charlie Card fare collection system with a modern account-based system. Mr. Vong focuses primarily on the monitoring system and performance data integrations, auditing reports, and working through defects found within the system. He supports the project through validating key performance indicators for their AFC system, test case reviews, and system testing.
2023 – Present	**Next Generation Go-To Card, Metro Transit, Minneapolis-St. Paul, MN** CCG is supporting Metro Transit in an upgrade project as they replace their existing Go-To Card system with an account-based fare collection system. CCG performed a fare system assessment, uncovered gaps in the existing system, and captured Metro Transit needs for their future system. Mr. Vong is supporting Metro Transit by providing recommendations based on industry standards and through leading requirements development and design review for the future system. He is supporting the project through the implementation phase.
2023 – Present	**Ventra 3.0, Chicago Transit Authority, Chicago, IL** Mr. Vong is currently supporting the Ventra system upgrade by validating Cubic's open architecture environment. This includes validating the correct functionality from their API set as well as ensuring their documentation is ready for third-party integrations.
2023 – 2024	**PRESTO, Metrolinx, Toronto, CA** Metrolinx tasked CCG with leading the development of the latest account-based Automated Fare Collection Solution (AFCS) specifications to replace the first-generation PRESTO system. Mr. Vong is supporting Metrolinx on requirements analysis, traceability, and settlement for the upgraded system.

2021 – 2023	**Boeing 702MP Satellite Product Line, The Boeing Company, Los Angeles, CA** Mr. Vong collaborated with other teams within the Avionics department to develop and test mission-critical software for Boeing's latest commercial satellite product line. His role within the flight software team was software analysis and implementation, testing, build management, database management, and improving software quality. He was crucial to the flight software delivery for the Satelit Nusantara Lima (SNL) and Viasat programs and supported three other programs in various ways in the above capacities. He managed the databases for every program that utilized the 702MP product line and served as a build manager for the SNL program. The scope of work included driving the project schedule, integrating software updates, software build management, database management, delivery testing, and ongoing technical support. Mr. Vong was the point of contact from the flight software team from start to finish and delivered the project on schedule.
2019 – 2020	**Ticket Vending Machine Embedded Subsystems, Cubic Transportation Systems, San Diego, CA** Mr. Vong worked on various embedded components within Cubic's Ticket Vending Machine product. He led firmware development for the Uninterruptable Power Supply (UPS) embedded subsystem to communicate Ticket Vending Machine power supply status to other subsystems. This provided robust error handling in the event of a system power failure. He wrote requirements, created state diagrams, led design and status meetings with stakeholders, and developed the firmware. Mr. Vong also worked on the Extended Use Transport Controller (EUTC) board, which handles the dispensing of encoded smart media from Ticket Vending Machines during fare sales. For the EUTC board, he fixed software bugs and performed smoke testing to ensure proper functionality.
2020 – 2021	**PATCO TVM Windows 10 Upgrade, Cubic Transportation Systems, San Diego, CA** Worked on upgrading the PATCO legacy TVM system to Windows 10 to support modern card readers. This included software analysis, code migration, integration testing, and creating a custom Windows installation package with the WiX Toolset.
2018 – 2021	**Driver Control Unit and Farebox, Cubic Transportation Systems, San Diego, CA** Mr. Vong worked on the Driver Control Unit product line within Cubic's Device Software team to develop and test Bus Devices for the Washington Metropolitan and Transportation Authority, LA Metro, and Miami-Dade Transit. Work included software bug fixes, requirements gathering, project management, and ongoing delivery support with both lab and field testing.
2018 – 2019	**Device Management PoC with Microsoft Azure, Cubic Transportation Systems, San Diego, CA** Created a cloud-based device management system as a proof-of-concept project with sales and validation devices within Cubic Transportation Systems. This allowed the use of Azure IoT Hub along with other Azure services to consolidate fare collection data as well as provide dashboarding, reporting, and commanding within a single platform. Mr. Vong traveled to the London Cubic Transportation Systems office to demonstrate this proof-of-concept project in an internal hackathon.

PROFESSIONAL ACCOMPLISHMENTS

2023	**Boeing PRIDE Award for the on-schedule delivery of flight software for SNL satellite program**
2020	**Above and Beyond Cubes (ABC) Award for delivery of bus device solution and project support**

WORK HISTORY

2023 – Present	**Consultant, Clevor Consulting Group, Portland, OR** Mr. Vong was hired in 2023 to enhance the technical team at Clevor Consulting Group. He has been supporting various projects in different capacities, including system monitoring, requirements

development, design review, testing, and more. His experience in the design, development, and testing of fare collection systems carries great value in supporting the agencies we work with.

2021 – 2023 **Real-Time Software Engineer II, The Boeing Company, Los Angeles, CA**
Mr. Vong led the flight software development for one of Boeing's latest satellite programs through every phase of the software development cycle. He collaborated with various teams within the avionics department to develop and test mission-critical software for five of Boeing's commercial satellite programs. He also managed flight software production and test databases for the most recent satellite product line as well as software releases by driving project schedules, change requests, and code integration. He ensured code quality and maintenance by triaging and fixing numerous static analysis issues and was responsible for documented database management, build management, and the flight software information processes.

2018 – 2021 **Software Engineer I, Cubic Transportation Systems, San Diego, CA**
Mr. Vong started his professional career right after graduating college at Cubic Transportation Systems, where he worked within the Device Software department. During his time there, he worked on feature implementation and software bug fixes for various products such as the Driver Control Unit, Ticket Vending Machine, and Card Reader. For Bus Devices, he worked on Driver Control Unit and Farebox upgrade efforts for multiple transit agencies. This included software development, testing, and program management. Within Rail Devices, he helped develop various subsystems used throughout Cubic's Ticket Vending Machine product.

2016 – 2018 **Software Developer (Intern), UCSD Scripps Institute of Oceanography, La Jolla, CA**
As a part-time intern working under Professor Uwe Send at the UCSD Scripps Institute of Oceanography, Mr. Vong developed desktop applications to aid in climate change and ocean acidification research. He created three different automation applications, significantly decreasing the time required by field researchers to actively operate oceanography recording devices. This included the automation of device configuration as well as data exchange between oceanography recorders.

2015 – 2017 **Software Engineer (Intern), VSP Vision Care, Sacramento, CA**
In a true internship program over the summers of 2015 - 2017, Mr. Vong created and maintained web-based internal applications used by over three teams. One application was a CRUD application used to view and modify client records. He also created and maintained an internal web-based API management tool that allows the company to manage, test, and use internal APIs without exposing sensitive client information to external tools.

EDUCATION

2018 **B.S., Mathematics and Computer Science, University of California, San Diego**
Mr. Vong graduated in 2018 with a Bachelor of Science in Mathematics and Computer Science