

UYEN HOANG

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SOFTWARE AND AUTOMOTIVE EMBEDDED SYSTEMS TEST ENGINEER

Experienced Test Engineer with over 10 years of experience in software testing, specializing in Validation and Verification of Automotive Embedded Systems, Software Testing across automotive, finance, and healthcare domains. Roles included are automation testing and test leadership. With an additional 3 years in diagnostic services based on ISO 14229. Proven expertise in requirements analysis, test planning, automation design, and system integration within Agile and V-Model environments. Skilled in leveraging tools such as CAPL, dSPACE AutomationDesk, dSpace HiL, Vector CANoe, Loadbox and Java to drive testing efficiency and ensure high product quality.

- Specification and Requirements Analysis • Test Automation Strategy • Software Testing Lifecycle • Diagnostic Protocols
 - Validation and Verification Techniques • Test Planning and Execution • Embedded Systems Testing
- Agile and V-Model Methodologies • System Integration Testing • Quality Assurance Process Improvement

Languages: CAPL, Java, JavaScript

Web: HTML, CSS

Web Services: RESTful APIs

Frameworks: dSpace AutomationDesk, Spring Boot, Selenium

Databases: MongoDB, MySQL

SDLC: Agile, V-Model, Kanban

Tools: IntelliJ IDEA, Visual Studio, Eclipse, SourceTree, Katalon, Selenium, Git, BitBucket, Postman, Debugger, OFFBOARD DIAGNOSTIC SYSTEM ENGINEERING

Platforms: Windows, MacOS, Android, iOS

Application/Software: dSpace ControlDesk, Synect, Vector CANoe, JIRA, ServiceNow, AEEE & Toolbase, TortoiseSVN, WinIDEA, Renesas Flash Programmer

CAREER NOTE: Completed on-campus studies and currently taking distance education courses to complete a **Master's Degree in Computer Science** (Available for full-time, W-2 employment).

PROFESSIONAL EXPERIENCE

BOSCH GLOBAL SOFTWARE TECHNOLOGIES VIETNAM, Ho Chi Minh, Vietnam • 11/2021 – 01/2025

Bosch Global Software Technologies Company Limited is a 100% owned subsidiary of Robert Bosch GmbH - one of the world's leading suppliers of technology and services, offering end-to-end Engineering, IT and Business Solutions.

Specialist and Lead Engineer

Validation and Verification in Automotive Embedded System.

- Led development of the system management feature, securing the first-phase win of the Honda project by aligning software validation with customer requirements and architecture.
- Enhanced and maintained automated test scripts using CAPL and dSpace AutomationDesk, significantly reducing manual intervention and improving test cycle efficiency by 70% in validation workflows.
- Conducted deep system requirements analysis for the System Management module of the Honda project, identifying architectural gaps early and reducing requirement-related defect leakage by 30%.
- Analyzed internal and customer specifications across the ECU integration stack using Rational DOORS and proprietary tools, ensuring traceability and compliance in ISO 14229 diagnostics validation.
- Participated in peer reviews of design specifications, test documents, and implementations across validation phases using Bitbucket and internal review tools, ensuring 100% coverage and quality alignment with project KPIs.
- Participated to install a full-featured Hardware-in-the-Loop (HiL) lab in Vietnam after two international research trips, setting up Loadbox, Debugger, CAN/LIN networks, Nail-of-Bed, and Relay for system testing scalability.
- Mentored interns and fresher system engineer in diagnostics testing and automation tools, resulting in 100% successful full-time conversions and reducing onboarding time for new hires by 50%.
- Designed and facilitated three internal workshops — “Retrospective,” “Bonding & Feedback,” and “Dare To Move”—fostering team collaboration, boosting engagement, and improving internal survey ratings.

Technologies Used: CAPL, dSpace, CANoe, WinIDEA, ControlDesk, Loadbox, HiL, Rational DOORS, Toolbase.

KMS TECHNOLOGY INC, Ho Chi Minh, Vietnam • 11/2013 – 05/2020

KMS Technology, founded in 2009, is a U.S.-based technology services company with development centers in Vietnam and Mexico, providing globally trusted software consulting and development services.

Senior QA Engineer/Test Lead

Automation Test and Test Lead.

- Designed and maintained a scalable automation testing framework for the HotSchedules and KBB projects using Selenium and Katalon, increasing test reliability and reducing regression execution time by 50%.
- Estimated, prioritized, and coordinated test planning and execution for enterprise SaaS projects using Agile methodologies, ensuring 100% on-time delivery across multiple sprint cycles.
- Reviewed and optimized QA reports and statistical dashboards using Jira and custom templates, improving stakeholder visibility and reducing defect reporting gaps by 30%.
- Evaluated customer requirements and translated them into actionable test strategies for the AgreementExpress platform, contributing to a 95% client satisfaction rate on release readiness.
- Collaborated with cross-functional Scrum teams during sprint planning and grooming sessions, analyzing stories and acceptance criteria to improve test coverage and reduce rework.
- Initiated and conducted over 5 internal Pronunciation Workshops across global QA teams, enhancing cross-site communication skills and improving team collaboration in client-facing roles.

Technologies Used: Java, Selenium, Katalon, Jira, Java, AWS Cloud Testing, GitHub.

HARVEYNASH VIETNAM (NOW IS NASHTECH VIETNAM), Ho Chi Minh, Vietnam • 12/2009 – 10/2013

Harvey Nash Vietnam, established in 1988, is a global technology solutions and talent services provider, offering technology recruitment, IT outsourcing, and leadership services to clients worldwide.

Senior QC Engineer/Test Lead

Automation Test and Test Lead

- Developed and executed detailed test plans and manual test cases for enterprise web applications, covering critical business flows and reducing post-release defects by 35%.
- Reviewed and analyzed project requirements for testability and scope estimation during planning phases, increasing sprint predictability and reducing last-minute rework by 25%.
- Built and maintained stable test environments in coordination with DevOps, enabling reproducible executions and minimizing environment-related test failures across QA cycles.
- Prepared comprehensive QA reports tracking test progress, defect trends, and quality metrics, improving stakeholder visibility and supporting data-driven go/no-go decisions.
- Mentored and coached junior QA engineers across multiple projects, leading to improved onboarding effectiveness and achieving a 100% retention rate during the first 6 months.

Technologies Used: JavaScript, HTML5, CSS3, Selenium.

ACADEMIC PROJECTS**Maharishi International University (2025)**

- **Spring AI with RAG, Multimodal and Observability:** Developed a Spring Boot 3.3 app with AI features including chat, summarization, translation, image generation, and audio (speech-to-text and text-to-speech). Implemented RAG with an in-memory vector store and integrated observability using Micrometer, Prometheus, and Grafana. Delivered a modern single-page UI with RESTful APIs for seamless interaction.
- **Dice Game with AWS Integration:** Built a two-player web game where players race to 100 points, integrating AWS services for secure score storage and user authentication. Developed as an SPA with HTML, CSS, and JavaScript, hosted on S3 with CloudFront, using DynamoDB for scores, Cognito with JWT for authentication, API Gateway, and Lambda for backend processing.

EDUCATION**Master of Science in Computer Science**

(In progress via distance education; expected completion 10/2027)

Maharishi International University, Fairfield, Iowa

Key Courses: Enterprise Architecture, Modern Web Applications, Cloud Computing, Algorithms

Bachelor of Engineering in Computer Science & Engineering

Ho Chi Minh City University of Technology, Ho Chi Minh, Vietnam (10/2012)