



Efrain Plascencia

TECHNICAL LEAD · CONNECTED VEHICLE & TELEMATICS · AUTOMOTIVE SOFTWARE

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01 PROFESSIONAL SUMMARY

Automotive software engineer with 10+ years leading quality, integration, and delivery of connected-vehicle and telematics systems across OEM programs at Toyota, Mercedes-Benz, Hyundai, and PACCAR. Deep hands-on experience with DCM and infotainment head units, in-vehicle ECU communication, and backend/cloud integration for user-facing features including account registration, profile activation, and remote services. Skilled technical liaison across app, head-unit, and server teams — coordinating test strategies, triaging bugs, running cross-functional meetings, and driving root-cause analysis across hardware and software stacks.

02 CORE COMPETENCIES

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|--------------------------------------|--------------------------------------|
| 01 DCM / Infotainment Systems | 02 Telematics Architecture (HW + SW) |
| 03 Connected Vehicle Applications | 04 User Profile & Account Systems |
| 05 In-Vehicle ECU Integration | 06 Backend / Cloud Integration |
| 07 Technical Specification Authoring | 08 Bug Triage & Root-Cause Analysis |
| 09 Test Case Design & Validation | 10 Cross-Functional Tech Leadership |
| 11 Global Team Coordination | 12 Embedded System Architecture |
| 13 OTA Updates & SDV Delivery | 14 Defect Tracking (JIRA) |
| 15 Agile / SDLC / Release Management | |

03 PROFESSIONAL EXPERIENCE & EDUCATION

EDUCATION Bachelor of Science, Computer Science 2008 — 2012

California State University, Long Beach · Long Beach, CA

- Four-year degree in Computer Science — foundation in systems, algorithms, and software architecture.
- Bay-adjacent campus that launched a career in West-Coast automotive software.

EXPERIENCE Quality Engineer — Telematics 2013 — 2017

Hyundai Autoever Telematics America · Fountain Valley, CA

- Designed and implemented QA processes for Hyundai telematics systems — full stack from DCM and head unit to backend connectivity.
- Validated hardware–software integrations across embedded firmware, cloud APIs, and mobile clients — improving first-pass reliability of connected features.
- Took on diverse responsibilities in a startup-scale environment: UAT, basic DevOps for deployment pipelines, early-stage requirements gathering.
- Built a generalist skill set across business analysis, product, and release management.

EXPERIENCE End-to-End Quality Engineer

MAR 2017 — MAR 2020

Mercedes-Benz R&D North America · Long Beach, CA

- Led end-to-end testing for integrated vehicle systems — head unit, smartphones, digital assistants (Siri, Alexa), wearables, and IoT devices in premium automotive settings.
- Designed detailed test strategies for software–hardware interactions on infotainment and telematics platforms.
- Identified and closed integration defects that improved system compatibility and UX consistency.
- Collaborated with business and engineering teams in Mexico — aligning regional requirements into global test processes for multi-market launches.

EXPERIENCE Senior Test Engineer — Connected Services

MAR 2020 — DEC 2022

Toyota Motor North America · Plano, TX

- 2.5 years on Toyota connected-vehicle applications — working directly with product, app, head-unit, and backend teams on user-facing telematics features.
- Owned the technical path for end-to-end validation of user profile, registration, and account-activation flows across mobile app, vehicle head unit, and server.
- Validated service activations across cloud backends and the in-vehicle DCM — identifying and closing specification gaps before release.
- Authored and translated test cases from Japan HQ and North America product requirements; led defect triage with global engineering counterparts across time zones.
- Acted as technical escalation point — reading and interpreting app and service-layer code to reproduce issues and assign ownership accurately.

EXPERIENCE Lead Test Engineer

DEC 2022 — APR 2023

PACCAR · Lewisville, TX

- Led end-to-end validation for a new commercial-vehicle electrical/electronic architecture.
- Coordinated with Tier-1 suppliers, embedded software teams, and program management to meet aggressive release milestones.
- Designed and executed test strategies covering in-vehicle ECU communication, diagnostics, and backend network integration.
- Triage failures and drove root-cause analysis across hardware and software stacks.

EXPERIENCE Head of Business Development & Engineering

APR 2023 — PRESENT

GEMMACON North America · Long Beach, CA (Remote from DFW)

- Built and lead a cross-functional technical team from the ground up — validating software for advanced automotive computing platforms including infotainment head units, domain controllers, and SDV architectures.
- Primary technical liaison across OEM programs — aligning client architects, embedded developers, backend/cloud teams, and QA on specifications, interfaces, and release criteria.
- Author test strategies and triage processes that resolve complex defects spanning app, head-unit, and server layers — reducing turnaround on cross-domain issues.
- Grew engineering headcount by 300% while partnering with global teams across North America, Europe, and Asia.

04 TECHNICAL SKILLS & TOOLS

AUTOMOTIVE DOMAINS

DCM, Infotainment, Telematics, Connected Vehicle, ECU Communication, OTA Updates, ADAS, Software-Defined Vehicle (SDV)

SYSTEMS & INTEGRATION

Embedded system architecture, hardware/software stack debugging, CAN-based diagnostics exposure, backend/cloud API integration, user profile and account service flows

PROCESS & TOOLING

Technical specification authoring, test case design/translation/validation, defect triage, JIRA, Confluence, Git, Agile/Scrum, release management

CODE LITERACY

Comfortable reading and interpreting application and service-layer code to reproduce defects, assign ownership, and accelerate triage across app, head-unit, and server teams

EMERGING TECH

Generative AI and LLM integration (OpenAI, Perplexity), RAG, prompt engineering, AI agents and automation for engineering workflows

05 HIGHLIGHTS

Guest speaker, Mercedes-Benz R&D North America

2025

Returned to the Long Beach R&D campus — the same site where I led end-to-end vehicle testing eight years earlier — to present on applied AI and large language models in the automotive stack.

06 CERTIFICATIONS

Designing and Building AI Products and Services

2025

MIT xPRO — Professional Certificate Program

07 LANGUAGES

English NATIVE · Spanish BILINGUAL · *German* VERY VERY VERY LITTLE

XX COMPANION SITE

<https://www.efrain.me/>

