# Acsia

## **LiLA Copilot Suite**

#### Enabling significant enhancement in SW development efficiency and productivity.

The automotive industry is undergoing a major transformation driven by electrification, autonomous technologies, and software-defined vehicles. In this context, Artificial Intelligence (AI) and Machine Learning (ML) are becoming essential for manufacturers and suppliers, offering significant economic benefits and streamlining product development.

According to a McKinsey report, AI and ML could contribute \$2.6 to \$4.4 trillion to the global economy, with 75% of this value arising from improvements in Customer Operations, Marketing & Sales, Software Engineering, and Product R&D. By leveraging AL and ML software engineers can automate tasks like document analysis and defect management, allowing them to focus on complex, creative work. This not only enhances time-tomarket but also fosters innovation through better requirements and test case generation.

As the automotive sector embraces these technologies, AI and ML are positioned as key drivers of efficiency, innovation, and digital transformation.

Requirements

Engineering\*SYS and SWE

### How Acsia Can Help?

LiLA, an Al-powered Developer Suite forms the bedrock of Acsia's Al capabilities in automotive SW development.

#### **1. Consulting Expertise**

#### Defect Management

- Log Analyzer for scrutinizing DLT logs and reporting anomalies
- Defect Analyser and JIRA Ticket Duplicate Detection

#### 2. Document Analysis Expertise

#### Feature Modelling\*

Scans norms documents and extracts features to expedite estimations and proposals. Saves considerable effort that usually takes a team of 10-12 about 6-8 weeks.

#### 3. Development Expertise

#### **Code Development**

- Generate design (SWE.2) from SWE.1 as input
- Develop code using prompts generated from SWE.2
- Create Unit Tests using AI (SWE.4)
- Generate code coverage

### **LiLA** Acsia Copilot

#### Standards Compliance

#### MISRA C/C++

- ASPICE\*
- ISO 26262\*

#### RAG (Retrieval Augmented Generation)

Eliminates huge TAT involved in searching voluminous requirements/standards documents and finding accurate answers.

#### **Code Optimization**

- Code Refactoring
- Dead Code Elimination
- Loop Optimizations
- Function Inlining

## Why Acsia?

#### A Decade of Excellence

10 years of experience in automotive software development for the world's leading automakers.

#### **LiLA Copilot Suite**

Acsia's AI/ML-powered developer suite LiLA is exclusively tuned for automotive SW development use cases.

#### **Experience across IVI, e-Mobility, and Telematics**

Acsia engineers have deep domain insights gathered from delivering numerous projects in in-vehicle infotainment, e-mobility and telematics to train the AI models.

#### AUTOSAR, Android Automotive, Automotive Linux, Verification & Validation, HMI

#### capabilities

Acsia engineers have proven expertise in automotive industry-relevant capabilities to train the AI models.

#### Isolated, Offline/Local and Secure

LiLA is deployed locally and operated offline ensuring information security by preventing the sharing of vital data online.

#### **2-months Consulting**

Framework and criteria to jointly identify use cases that can offer the greatest value.

#### **2 Deployment Models**

Custom UI (chat mode) and Microsoft Visual Studio Code IDE integration.

### What's In It For You

#### **Shorter Development Cycles**

LiLA helps development teams save considerable effort & time spent on the analysis of DLT logs and reporting anomalies, detection of duplicate bug tickets, unit testing, and code optimization.

#### **Faster Time-to-Market**

LiLA simplifies and saves time on requirements engineering, generating software architecture and design, developing code with engineered prompts, complying with MISRA C/C++ guidelines, unit testing,

### and code refactoring, dead code elimination, and performance optimization.

#### **Top-notch Quality**

Code volumes, ensuring exceptional functionality. Its Aldriven approach minimizes errors, enhancing software reliability and consistency.

#### 100% Compliance, Faster

LiLA automates compliance checks against standards, ensuring the software meets all requirements without rejections or rebuilds, allowing for first-time accuracy.

### Let's Talk

Acsia offers a 2-month Consulting Engagement to assess the value. We start by identifying the use cases with the best combination of efficiency, productivity, feasibility, and investment. These use cases are then implemented (based on data volume) in an Acsia offline environment or the customer's cloud subscription so that the data stays secure. Finally, we evaluate the use cases as a team for proof of value and provide recommendations.

#### Our use case model defines four criteria to evaluate high-value use cases to pursue first.

#### **Efficiency gains**

Does the use case enable faster and cheaper delivery?

#### Feasibility

Evaluates whether a use case is viable in spite of the usual constraints (data, technology, compliance, integration etc.)

#### **Productivity potential**

Can the use case deliver more when resources and time are constant.

#### Investment

Consider the intellectual capital, financial resources, infrastructure and time needed to develop, implement and maintain the use case satisfactorily.

#### Acsia Technologies

7<sup>th</sup> Floor, Niagara, Embassy Taurus TechZone, Technopark Phase III, Thiruvananthapuram, Kerala, India www.acsiatech.com enquiry@acsiatech.com