

# Former Amazon Robotics Engineer Advances 'Living Safety' Framework for Autonomous Vehicle Development

*Industry expert calls for continuous safety validation as autonomous systems move from pilots to public roads*

ATLANTA, GA, UNITED STATES, December 19, 2025 /EINPresswire.com/ -- As autonomous vehicles transition from controlled pilots to everyday public roads, industry attention often centers on artificial intelligence performance, sensor fusion, and real-world driving demonstrations, according to a former Amazon robotics engineer known in engineering circles as the [Lion of Functional Safety](#). The most critical work shaping autonomy today is occurring beyond the vehicle itself.

During his tenure at Amazon, he led and supported functional safety initiatives that helped establish the foundation for large-scale robotics systems designed to operate continuously, adapt in real time, and interact safely with people. That experience shaped a core belief he now brings to the autonomous vehicle sector: safety cannot be treated as a one-time certification milestone. It must be treated as a living system.

While at Amazon, he helped advance a culture that viewed safety as an ongoing responsibility rather than a procedural requirement. He notes that this shift in mindset significantly changed how systems were evaluated and maintained over time.

Many autonomous platforms today continue to rely on safety frameworks originally designed for static systems. Those systems could be analyzed, certified, and deployed with confidence that their behavior would remain consistent. Autonomous driving software, however, evolves continuously through machine learning updates, over-the-air deployments, and ongoing optimization. When safety assumptions fail to evolve alongside these systems, risk accumulates



Jherrod Thomas, former Amazon Robotics engineer and functional safety expert.

during real-world operation.

As a Certified Functional Safety Expert, Certified Machine Safety Expert, UL technical committee member, and contributor to multiple ISO working groups, he has spent years applying and helping shape the standards now facing increased scrutiny. His work also includes reviewing advanced patents, including research originating from NASA, and training the next generation of functional safety engineers.

Rather than replacing existing standards, his focus is on extending them. He emphasizes alignment, ensuring that safety cases remain synchronized with systems that change after deployment.

"If safety only exists at the moment of certification," he explains, "it does not exist where it matters most, during operation."

By introducing a "living safety" framework to discussions with engineers, regulators, and policymakers, he advocates for continuous safety validation, ongoing assumption management, and accountability throughout a system's lifecycle.

The objective, he emphasizes, is not to slow innovation, but to protect public trust as autonomy scales.

As autonomous vehicles continue expanding into everyday environments, the Lion of Functional Safety is advancing a clear message: lasting progress depends not only on smarter machines, but on safety thinking that evolves alongside them.

#### About Jherrod Thomas

His engineering career began while still in high school, entering the workforce as a student engineer and gaining early exposure to complex systems in operational environments. Over more than two decades, he has worked at and led initiatives within organizations focused on robotics, automation, and autonomous systems. He holds both a Bachelor's and a Master's degree in Robotics and now concentrates on ensuring advanced technologies scale safely in real-world conditions.

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