

Case Study

Testing Gets Smarter

GenAI's Breakthrough in Test Program Creation

Summary

Sonata helped a hi-tech manufacturer with a GenAI chatbot, enabling customers to autonomously resolve highly technical queries. This innovative solution reduces test program creation time by 33%-40% and achieved 80% accuracy during the POC, with an expected 95% accuracy in the final product. By leveraging GenAI, customers can now access solutions that traditionally required three to five years of technician experience, significantly enhancing support efficiency and time-to-market.

Client Overview

The client is a hi-tech manufacturer specializing in test, automation, inspection, and metrology products and services for the semiconductor industry.

Revenue
\$700 M

Headquarter
California

No. of Employees
3500+

Pressure Points

The client's customers must create test programs to ensure semiconductors operate under the necessary conditions for their specific products. This highly technical process presents several challenges including:

Test program creation process
taking up to 6 months

24-hour delay in customer support
response for issues encountered during
the test program creation process

Significant delays in customers'
time to market

Solutions

Sonata demonstrated expertise in 'Responsible-first GenAI', showcasing the ability to build a GenAI solution capable of answering highly technical and product-specific questions. Leveraging this expertise, Sonata developed a GenAI-based chatbot to enable a self-service model, significantly reducing the test program creation time. The POC took only five weeks to complete.

Eventually, we expect the GenAI solution to create the entire test program.

Technologies Used

- Amazon LLMs
- Natural language Processing
- Proprietary programming language training
- Integration with complex hardware products

Results

33%-40% time reduction
in the test program creation process

80% accuracy
in the POC and expected to get **95%** in
the final product

Improved
customer support
response time

Enhanced efficiency
in handling technical queries