

MERCEDES-BENZ X STARDUST

From 0 to 76,000 in 17 Days: Redefine AI Data Delivery at F1 Pace

Stardust supports Mercedes-Benz with advanced auto-labeling algorithms to accelerate high-quality data generation for ADAS and autonomous driving.

The Challenge

The project demonstrated Stardust's capability to deliver high-accuracy, large-scale 3D/4D labeling for autonomous driving under tight timelines. Key challenges included meeting the OEM's advanced labeling specs, applying custom QC logic, ensuring strict data security, handling complex corner cases, and operating under strict technical and organizational constraints.

The Solution

These challenges were addressed through a multi-faceted approach. Stardust's platform supported a broad range of annotation types, enabling it to accommodate the varied requirements of the project. Semi-automated labelling tools enhanced workflow efficiency by intelligently assisting annotators, while advanced automated labelling algorithms significantly reduced both operational costs and turnaround times. These capabilities were tightly integrated to create a cohesive and scalable annotation environment.

The Outcome

Stardust delivers a powerful, flexible, and intuitive labeling solution that accelerates the development of autonomous driving at Mercedes-Benz. With advanced auto-labeling, highly customizable configurations, and a rich feature set, it significantly boosts internal project efficiency. The platform enables fast, accurate labeling across any data format and ensures seamless collaboration across teams. To meet Mercedes-Benz's strict security demands, Stardust deployed the platform on a fully compliant cloud environment.

Project Highlight

Delivered a high-intensity POC in just 17 working days, labeling over 76,000 3D instances with 100% audit alignment. Enabled API response time improvement by 92% from 1.95s to 0.17s. Building on 30–50% model improvement validated through our historical projects with other OEM's, our tools have delivered equivalent performance gains for target clients. The project validated Stardust as a strategic partner for scalable, high-precision data operations in ADAS and autonomous driving.

Stardust

Stardust accelerates ADAS R&D with automation-driven annotation, advanced algorithms, and a unified end-to-end AI data management platform

Stardust's solution increases data annotation precision and AI data model quality and reduces the cost of data mining by leveraging over 100 algorithms, over 70% automation, and global best practice insights across 5000+ projects.



Headquarters

Frankfurt, Germany

Founded

2017

No. Employees

51+

Website

stardust.ai

Acknowledgement

We would like to express our sincere thanks to Zebang Shen (Mercedes-Benz) and Claire Huang (Stardust).

Project Contact

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About STARTUP AUTOBAHN powered by Plug and Play

STARTUP AUTOBAHN powered by Plug and Play is an open innovation platform that provides an interface between innovative tech companies and industry-leading corporations.

The basis of the program is the partnership that develops between startups and the corporate business units. The two entities hold an equal footing from the get-go: together they evaluate the potential for a joint venture, move forward to pilot the technology, and work to achieve the ultimate goal – a successful production-ready implementation.

Designed with the intention to exceed startup acceleration, STARTUP AUTOBAHN powered by Plug and Play moderates a community for collaboration with a focus on implementable results.

Over the years, the platform has successfully cultivated over 500 projects with more than 350 startups since its founding in 2016. ■

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