DOTPHOTON | BOSCH

Cut Costs and Work Faster with Raw Image Compression Designed for AI

Bosch and Dotphoton deploy cutting-edge data compression for AI and safety-critical applications.

THE CHALLENGE

Data is the most important ingredient in AI and software-driven development. However, the costs of image data storage are exploding nowadays. After some years of joint work, Dotphoton and Bosch found a way to significantly increase the efficiency of data handling in safety-critical automotive applications.
Key is to have a stringent argumentation and evidence that the compression is not affecting performance and has no negative impact when used with AI, despite the fact that AI hides its operation inside its neural networks.
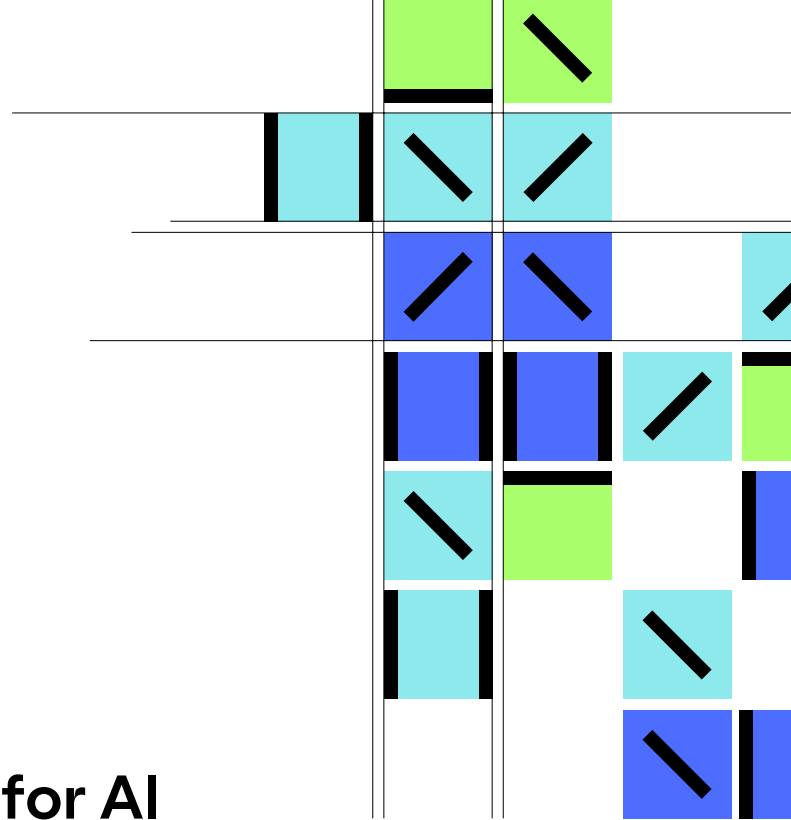
THE SOLUTION

By careful physical modeling of the noise behavior of the sensor and combining it with Bosch's unique knowledge of automotive image sensors, Dotphoton was able to store the relevant information only, significantly reducing image size. Dotphoton and Bosch jointly demonstrated that this technology, used in aerospace and biomedical already, also fulfills the specific needs of automotive applications. An important barrier was to combine mathematical proofs with evidence from several complete Bosch validation runs to achieve safety approval and validation for AI applications by Bosch safety experts and thereby showing that there is no negative impact.

THE OUTCOME

Bosch and Dotphoton generated substantial savings in image data storage costs, and integrated the technology into existing toolchains without any performance degradation. The startup successfully offered a platform that immediately reduces costs and transfer times for cloud and on-premises data storage.

DOTPHOTON

WEBSITE
dotphoton.com

FOUNDED
2018

HEADQUARTERS
Zug, Switzerland

NO. OF EMPLOYEES
10–50

✦ **dotphoton**

Dotphoton develops scalable and reliable AI vision systems.

Dotphoton's platform increases the speed and reduces the costs of handling large volumes of image data by using model-based compression and synthetic image generation, being five times more efficient than other solutions.

ABOUT STARTUP AUTOBAHN

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 400 projects with more than 300 startups since its founding in 2016.

ACKNOWLEDGEMENTS

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