



GCP AND VISION AI POWER NEW OPPORTUNITIES FOR IMGIX

TECH INNOVATOR'S PLATFORM PROCESSES 6 BILLION IMAGES DAILY

CLIENT
imgix

INDUSTRY
Internet

TECHNOLOGIES
Google Cloud Platform

BUSINESS NEED
imgix needed a team of domain experts to sustain their next decade of operations. The company needed to move from on-prem systems to a scalable cloud platform that could support machine vision and AI capabilities, as well as high-velocity worldwide use.

SOLUTION
Agosto, a Pythian Company helped imgix set up and train its initial Vision AI models and to finalize several use cases that would leverage Vision AI and Cloud Spanner. The vast computing power available has made the process far faster and more comprehensive than any human user could manage.

From online marketplaces and popular media, to social networking sites and retail apps, images dominate the internet. In fact, their exponential growth has many companies struggling to manage all their visual assets. Combine that volume of pictures with the variety of devices and screens now in use, and it's clear why high demand exists for image management tools.

imgix, founded in 2011, solves those challenges with a robust platform that renders images at optimal size and quality, regardless of a user's browser or device. It's an innovative solution that has attracted investors and customers around the world.

"We want to be that critical pillar of infrastructure that people rely on to make their websites and mobile applications as visually friendly as possible," explained Chris Zacharias, CEO and founder of imgix.

However, the on-prem systems that fueled imgix's first nine years of growth were not built to sustain their next decade. Zacharias and his team knew it was time to develop an infrastructure for the future.

As an engineer himself and a former YouTube employee, Zacharias recognized the power of Google solutions. He also realized that even the most sophisticated Silicon Valley firms will achieve stronger results when they team up with domain experts. That's where Agosto, a Pythian Company, stepped in.

Together, imgix and Agosto:

- Collaborated to make smart tech decisions.
- Launched new capabilities on Google Cloud Platform (GCP).
- Introduced Google Vision AI and machine learning.
- Developed sound strategy to support future worldwide use.

"Working with Agosto gave us the ability to accelerate our development process," Zacharias said. "We knew the answers we were getting were solid."



RESULT

imgix now has the robust and scalable Google tech stack they need to add functionality and grow their platform. Vision AI and machine learning will be a big part of their evolution, as the company continues working to empower developers and businesses. In addition, their AI-driven knowledge will continue to expand, giving them more analytics—and more options—to serve their clients.

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— Chris Zacharias, CEO, imgix

BUSINESS CHALLENGE

Even Tech Experts Appreciate A Second Opinion

With image volumes growing, imgix needed to:

- **Move beyond on-prem constraints.** The same systems that powered their sleek, real-time image rendering were unable to support new capabilities like AI.
- **Automate image search and organization.** As more customers built deep image archives, the ability to understand, catalog and find images grew in importance.
- **Choose the right technology for future growth.** Company leadership knew today’s architecture decisions would have long-term impacts.

Are we making the right decisions about our tech stack?

That fundamental question prompted imgix to seek outside guidance. The company needed to move from on-prem systems to a scalable cloud platform that could support machine vision and AI capabilities, as well as high-velocity worldwide use.

While the in-house team was well-qualified, they realized their choices would have far-reaching impact. Time spent with domain experts would pay off quickly.

“Those big decisions around how you build your infrastructure so it can scale globally are very hard to walk back once you make them,” Zacharias noted. “We would have gone through a tremendous amount of pain if we’d picked the wrong technologies.”

imgix knew Google was the right foundation, but wanted to ensure their overall strategy, architecture and tools were equally sound. Finding the right partner was key.



“Our team is heavily engineering-oriented and many are from Google,” Zacharias said. “The people we would be working with had to be knowledgeable at a high level. Agosto proved that to us very quickly.”

Through a series of in-person meetings and online collaboration sessions, Agosto quickly grasped imgix’s needs, validated their approach and offered additional ideas. They recommended valuable tools—from Kubernetes to Terraform—to streamline development efforts. Agosto also shared examples and best practices to help imgix understand their options.

The two organizations rapidly built a strong, trusted relationship.

“Agosto validated what’s possible on Google Cloud and made sure we didn’t paint ourselves into a corner,” Zacharias said. “Their technology selections were well reasoned and rationalized. We know we can trust them.”

“ We would have gone through a tremendous amount of pain if we’d picked the wrong technologies. Being able to trust somebody like Agosto was really important.”

— Chris Zacharias, CEO, imgix

SOLUTION

Vision AI Unleashes New Opportunities

Agosto helped the tech innovator:

- **Validate decisions with Google experts.** Agosto’s experienced team helped imgix understand the potential within each application and create the ideal tech stack to achieve their goals.
- **Unleash the power of the cloud.** Moving to GCP provided the much-needed flexibility and scalability to introduce new functionality and support growth.
- **Apply the muscle of AI.** Using Google Vision AI and Google Cloud Spanner, imgix can now “see,” analyze and even auto-tag vast amounts of image content to reduce manual effort and improve its user experience.



From its inception, imgix revolutionized how websites and mobile apps load and display images. Now, the company was ready to improve how users find, catalog and learn from their images. Moving to GCP provided the necessary foundation and bandwidth. Adding AI would take their solution to a new level.

Automation was key, due to the sheer number of images many organizations now maintain. The imgix platform processes more than 6 billion images every day.

Agosto worked with imgix to finalize several use cases that would leverage Vision AI and Cloud Spanner. Using these sophisticated machine vision capabilities, the AI model “sees” each image and identifies its content. The vast computing power available makes the process far faster and more comprehensive than any human user could manage.

“Google has best-in-class artificial intelligence,” Zacharias said. “Their scalability is well proven and unmatched. Their documentation and code examples are really strong.”

Agosto helped imgix set up and train its initial Vision AI models. The more images they scan, the stronger their intelligence becomes. In its initial beta, imgix is already processing more than 100 million images each day.

“We can now tag all images with machine-trained tags, and that empowers our search algorithm,” Zacharias explained. “We’ve paired that with AI-learned tags. It’s incredibly powerful.”

With automated tagging, customers can filter their images in nearly unlimited ways, such as by color, subject or shape. AI capabilities also let them identify duplicate images, apply facial recognition to improve how photos are cropped, or screen for copyrighted or potentially explicit content. These features are particularly important for sites that thrive on user-generated content.

“We’re just starting to train our own visual models,” Zacharias noted. “It’s very simple in Google Cloud. We anticipate going deeper and deeper into custom-trained machine learning.”



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RESULTS

Agosto Helps Imgix Continue Innovating

With its new Google infrastructure, imgix has:

- **Established a platform for growth.** The company’s thoughtful and disciplined approach, combined with proven Google solutions, lets imgix move forward with confidence.
- **Empowered its customers with new tools.** Developers and businesses can now automate image tagging, improve image search and create a stronger user experience.
- **Continued its track record of innovation.** By applying the power of AI and GCP, imgix continues to improve the quality and ease of image use across the internet.

The strong partnership between imgix and Agosto translated into faster development and tangible results. Zacharias credits the expertise, focus and camaraderie of the Agosto team.

“Everybody we’ve worked with has been fantastic,” he said. “Agosto definitely understands what we’re trying to do. We were able to make really critical decisions after just a few hours. That was huge.”

He added, “It doesn’t hurt that they’re hockey fans.”

Going forward, imgix now has the robust and scalable Google tech stack they need to add functionality and grow their platform. Vision AI and machine learning will be a big part of their evolution, as the company continues working to empower developers and businesses.

As more users engage their platform, their AI-driven knowledge will continue to expand, giving them more analytics—and more options—to serve their clients.



“We plan to use that information to actually drive how images are rendered,” Zacharias said. “The better we get at machine learning, the better the images on the internet are.”

They will definitely tap into Agosto’s knowledge in the future.

“We value Agosto’s experience level, the ability to work at a high level and to make those technology recommendations,” Zacharias said.

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— Chris Zacharias, CEO, imgix

ABOUT AGOSTO, A PYTHIAN COMPANY

Founded in 2001 and headquartered in Minneapolis, Agosto is an award-winning cloud services company and one of the largest and most innovative Google Cloud Platform Partners in the world. The company helps organizations leverage Google Cloud products by providing technical solutions, change management and training, migration and deployment from legacy systems, ongoing admin support, and custom product development. In 2020 Agosto was acquired by Pythian, a global IT services company that helps organizations turn data into valuable insights, predictions and products. Together, Agosto and Pythian hold Google Cloud Partner specializations in Cloud Migration, Data Analytics, Machine Learning, IoT, Infrastructure, Application Development and Work Transformation-Enterprise. Pythian was named Google Cloud Data Analytics Partner of the Year in 2018. For more information visit www.agosto.com

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