How Cimpress uses Algorithmia's AI Layer to productionize their machine learning

"Managing cloud server instances and manually deploying models was taking a huge amount of our time. Algorithmia's serverless solution allows us to focus our work on developing our models and helping our businesses integrate them."

BRIAN HANECHAK | ENGINEER

Background

With more than 12,000 employees and offices on multiple continents, Cimpress (the parent company of Vistaprint) operates and invests in mass customization business around the globe. It's one of the foremost aggregators of customized merchandise in the world.

Challenge

Getting machine learning deployed manually at scale is a major challenge, even for the most technically advanced organizations. Once teams manage to create the proper internal systems to scale their models, maintaining and updating them is intensely expensive, and usually requires custom work on a model-by-model basis. Cimpress was looking for a solution that would deploy their models at scale easily but didn't require dedicated full-time staff just for maintenance.

To execute on their vision they needed:

- Infinitely, automatically scalable infrastructure.
- Low maintenance requirements: no engineers required full time just for deployment.
- GPU support on a serverless architecture.

Algorithmia's AI Layer offered the functionality that Cimpress needed.

Solution

Cimpress chose Algorithmia's AI Layer to deploy their machine learning models. The AI Layer solved the major pain points that Cimpress had:

Infinite Auto Scaling - Algorithmia's AI Layer scales workloads automatically so Cimpress never needs to worry about allocating resources

Low Maintenance Requirements - The cloud-hosted AI Layer is self-serve, and doesn't require any DevOps engineers for system maintenance.

GPU Support - Cimpress' models needed GPU support. Few cloud providers offer serverless GPU capabilities, and the AI Layer supports them fully.

Results

Cimpress was able to deploy their desired workload on the AI Layer and eliminate the need for a full time DevOps team on maintenance. As part of a small team—focused company, it's key that Cimpress groups can execute on machine learning projects without having to worry about lengthy and resource-intensive deployment cycles.

The AI Layer Accelerates Data Science		
	Manual Deployment	With the AI Layer
Full-time Cimpress DevOps Employees	3 FTEs	0 - .5 FTEs

For Cimpress, the AI Layer offered:
- Best-in-class support, response times, and integration capabilities.
- The ability to keep teams small and focused.
- Strong enough business value to push for increased ML investment and commitment.