Tevec uses Algorithmia to ensure goods are delivered to the right place at the right time

Tevec is a supply chain recommendation platform that uses machine learning to forecast demand and suggests optimized fulfillment in logistics chains. Put simply, it delivers the perfect order for retailers and goods industries so that products arrive at the right place at the right time.

Tevec helps its customers achieve a 50-percent reduction in stockouts in the last-mile echelon of the supply chain.

For every product in a store, Tevec runs a forecasting model and an inventory optimization model. Users can change and adjust the parameters of their optimization routine, such as delivery dates, minimum inventory, and service levels.

“Algorithmia provides the ability to not worry about infrastructure and guarantees that models we put in production will be versioned and production-quality.”

Luiz Andrade | CTO, Tevec
The challenge
Before working with Algorithmia, Tevec embedded models directly into its application, which presented a number of challenges:

- **Model Updating:** Models and applications were on drastically different update cycles, with models changing many times between application updates.
- **Model Versioning:** Versioning the changes and ensuring that all apps were calling the most appropriate model was difficult and prone to error.
- **Model Data Integrations:** Manual integrations and multi-team involvement made customization difficult. Models interact with myriad platforms such as ERP, PoS systems, and internal platforms, which was challenging to manage.

The solution
Algorithmia enabled Tevec to decouple model development from app development. By hosting models on Algorithmia, there is seamless integration of API endpoints, which allows Tevec users to maintain a callable library of every previous model version.

Algorithmia freed up Tevec’s architecture and data science teams from costly and time-consuming DevOps tasks. This extra time eliminated the need to hardcode model inference directly into app code.

> “Algorithmia is the whole production system, and we really grabbed onto the concept of serverless microservices so we don’t have to wait for a whole chain of calls to receive a response.”

*Luiz Andrade | CTO, Tevec*

With Algorithmia in place, data scientists and the architecture team could customize apps for users without touching models and call the best model version for any situation.

Algorithmia’s serverless architecture ensured the scalability Tevec needed to meet its customers’ varied demands without the waste of other autoscaling systems. Tevec only pays for compute resources it uses.

The future
With consistent 100-percent year-over-year growth, Tevec continues to evolve, and so will its architecture. It is planning additional products beyond perfect order, and while Python will likely remain Tevec’s language of choice, it is evaluating new frameworks, and will continue to respond to customer demands as it increases the scale and volume of its service. Algorithmia will be there to continue to enable that flexibility.