



# Stack strategies and algorithms to power unique shopping experiences.

In the ever-evolving e-commerce landscape, finding the silver bullet algorithm has become an elusive goal. Vendors assert their AI superiority, each touting their algorithm as a universal solution.

The reality is that e-commerce is a complex ecosystem with diverse customer preferences, behaviors, and needs. There is no single algorithm that can address every use case effectively. What we need is a shift towards a more nuanced approach embracing algorithm orchestration, which combines multiple algorithms to achieve optimal results.

With Crownpeak's Algorithm Orchestrator, you can blend different algorithms strategically to meet business goals. The result is a dynamic recommendation engine that adapts to customer preferences and market trends.

50%

**Improve Time to Delivery** implementing own algorithms via Crownpeak platform

FNAC DARTY

2.5%

**Increase Conversion Rate** by complementing own algorithms with Crownpeak's

Cdiscount

+150%

**Products Sold** from using algorithms with merchandising control

MAXOUTIL



# Mix, match, and blend algorithms

Don't get locked into a single vendor's algorithm roadmap.
Bring your own, third-party, and open-source algorithms, together with Crownpeak's to address unique customer needs.



# Collaborate for data and business synergy

Integrate collective expertise and align efforts between data team, merchandising team, and AI vendors on a single platform. The result is fast, effective implementation.



# Experiment to get the optimal mix

Identify the most effective algorithm configuration and combination through continuous A/B testing, so you can adapt to changing market dynamics with superior outcomes.

Algorithm Orchestrator

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## ALGORITHM ORCHESTRATOR OVERVIEW

### **FEEDS** 1

the model in real-time with relevant data

**CALLS** 2

the right algorithms with the right parameters

- · Real-time profile segments/behaviors
- Strategy configuration
- Hyper-parameters

#### **MIXES** 3

algorithm results

- Fallback
- Hybridization

#### **APPLIES** 4

merchandising rules and constraints

**ENSURES** 5

each algorithm is replying correctly

- · With enough results
- With an acceptable response time

**RETRIEVES** 6

product data and returns the results

**GETS** 7

advanced feedback on technical and e-commerce performance

## Define the right algorithm mix

### **FALLBACK**

Ensure optimal coverage for





Visitors Catalogue

E.g. Use Similar Items

If not, falls back to

Personalized Recommendations

If not, falls back to

**Most Trendy Items** 

### **HYBRIDIZATION**

Uses the best of each algorithm



## IMPLEMENTATION METHODS



### For Data Teams

Build your algorithm library from any source. Easily configure algorithms with scope and exposure control in line with business requirements. Instantly deploy for merchandisers to strategize with.



### For Business Teams

Activate and test mix of algorithms for a wider range of recommendation use cases. Apply merchandising rules on top like boosting, filtering, and diversifying to amplify impact on business KPIs.

## We call your API in real-time

- · You can apply real-time changes
- · You own the build and delivery process
- You can call internal systems on the fly
- · It's a black box for us
- · You are free to use any kind of model

# We host your model

- Shorter response times
- · We deal with traffic and scalability
- · More hybridizations available

Ready for a personalized demo?



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