



ALGORITHMIA

## EY uses machine learning to prevent financial crimes with Algorithmia

EY is a global financial consultant offering professional services such as assurance, tax, and advising. EY helps clients embrace technological opportunities, such as AI and machine learning (ML) for fraud detection, anti-money-laundering, economic sanctions compliance, and trade surveillance.

Institutions like EY actively combat financial crimes to build trust and integrity into the financial market. Machine learning can help companies address these vulnerabilities before, during, and after a crime happens.

It is estimated that fewer than 1 percent of financial crimes are detected; with AI/ML, however, EY aims to make the process of catching criminal activity more efficient.

### The challenge

EY works with many financial institutions, many of which run 100 or more models. Early on, many of EY's clients were spending nearly two years deploying a single model. Criminal behavior and patterns change all the time, making those models obsolete before they ever deployed.

EY needed to increase the speed to market for ML in finance to be viable. Cutting its customers' crime-detection timelines from years to days, therefore, was paramount. EY needed these capabilities:

- **Tooling flexibility**

Work seamlessly with current and future frameworks and libraries and never have to say no.

- **Pipeline modularity**

Encourage code-sharing and reusability; a modular pipelining system for component editing.

- **Enterprise scaling**

Enable on-demand, reliable scaling on a wide range of infrastructure configurations.

## The solution

Within five months of implementing Algorithmia, EY developed more than 100 models, using 10 different open-source frameworks and more than 75 libraries. This speed has had a massive effect on EY's ability to enable its customers to decrease the rate of financial crimes being committed.

---

“

We've reduced false positives in institutional systems by 40-60%, sometimes more, and the real benefit of working with Algorithmia has been taking deployment timelines down and getting models to production.”

**Carl Case** | Partner, EY

EY is able to anticipate its customers needs and meet them where they aim to go and Algorithmia's serverless scaling environment means EY's customers can process hundreds of millions of financial transactions a day.

---

“

Week to week there are always new libraries and frameworks being deployed, and we aim to stay on the cutting edge of that, and Algorithmia helps in that respect because of its agnostic platform.”

**Greg Capece** | Senior Manager, EY

EY developer's workflows were transformed by Algorithmia's model pipelining—splitting up parts of ML models into reusable, modular parts for complex applications—and versioning capabilities. EY can now make changes to various parts of a pipelined model without breaking it apart or disrupting the workflow.

## The future

As EY's customers develop ever-more complex use cases for combating financial crimes, they can rely on the continued benefit of Algorithmia for shortening deployment timelines. With Algorithmia's help, EY can change the financial industry to create a safer world.

See what we can do:  
**[algorithmia.com/demo](https://algorithmia.com/demo)**

Learn: [algorithmia.com](https://algorithmia.com)  
Connect: [sales@algorithmia.com](mailto:sales@algorithmia.com)