

FINVOLUTION: DRIVING INNOVATION TO MANAGE RISK CONTROL, REDUCE OPERATIONAL COST, AND BE SECURE

IMPACT

- The Mirror System for pre-loan management boasts an accuracy rate of up to 70 percent in identifying high-risk clients and credit fraud.
- Launched an intelligent collection robot, Zhiniu, guaranteeing a higher collection rate and helped save up to 40 percent in cost compared with the original manual collection system.
- Analysis methods provided by the new platform are robust and diversified, offering great flexibility.

FinVolution Group, a leading FinTech company in China, is an online consumer finance platform offering loan services to borrowers and investment services to individual investors and institutional funding partners. The company has three main business sectors: technology-driven consumer finance, international, and smart retail. Listed on the New York Stock Exchange in 2017, the company is committed to the mission of “Technology makes financial services better” through innovation in big data and artificial intelligence (AI).

The company serves the public interest by enabling financial institutions with innovative financial technology to serve their customers. FinVolution is dedicated to facilitating the connections between business institutions and consumers to create an open ecosystem and contributing to the development of inclusive finance in Southeast Asia.

Challenges

For FinVolution, technology is the engine for business growth. The company supports and practices inclusive finance, leveraging big data and AI, to support the development of small and micro enterprises, and lays a solid foundation for diversified development.

Previously, FinVolution group had built and supported their own big data platform. Upgrading the platform and integrating new versions of open source components became ever more challenging and demanded increasing investment in engineering resources, driving up costs. As the organization is keen to minimize costs and maximize profit, this approach becomes unsustainable.

Being in a regulated industry, Finvolution was also challenged with security compliance requirements from regulators - they needed a highly secure and low risk platform. They needed to better manage expedited access to their data as the practice of data relocation was time-consuming and laborious. The original data platform required importing data from the database first before analyzing it and this was not a scalable model.

Furthermore, given the limited internal IT operation and maintenance personnel, problems in the data applications could not be solved immediately and led to long-term production stagnation.

70%

Accuracy rate for identifying fraud

"The mission of FinVolution is 'Technology makes finance better and we have been committed to exploring and innovating in the field of financial technology. Through cooperation with Cloudera, we have deployed a modern big data platform and achieved remarkable business results in the field of intelligent risk control. At the same time, we will also provide our accumulated technological capabilities to many external financial institutions, enabling technology and promoting the overall digital transformation of the financial industry to better serve the customers.'"

-Chen Lei, vice president of FinVolution

About Cloudera

At Cloudera, we believe that data can make what is impossible today, possible tomorrow. We empower people to transform complex data into clear and actionable insights. Cloudera delivers an enterprise data cloud for any data, anywhere, from the Edge to AI. Powered by the relentless innovation of the open source community, Cloudera advances digital transformation for the world's largest enterprises. Learn more at cloudera.com

Solutions

FinVolution started working with Cloudera, as a strategic partner, to deploy the new big data platform increasing its data nodes from 20 to 150. Partnering together a series of applications based on the new big data platform were developed, including:

- **Intelligent risk control star products:** A "Clear Mirror System " was built to manage pre-loan data, based on the big data cluster. A rule-based machine learning system was built to accurately identify high-risk clients and credit fraud using different client groups and a combination of data mining, big data, and AI technology. In addition, the "Magic Mirror" system was created for post-loan data management, such as post-credit monitoring, personal credit and repayment. At the same time, it enabled risk ratings, delinquent repayment forecasts, and overall client profiling and risk assessment profiling.
- **Intelligent debt collection robot:** Based on the big data platform, FinVolution has developed an intelligence collection robot -- Zhiniu. This replaces the original manual collection system, ensuring a higher loan repayment rate while achieving 40% cost savings.

Results

With the deployment of Cloudera's enterprise data platform, FinVolution has achieved results in both business and technology advancements.

- **Intelligent risk control:** The "Clear Mirror System and the Magic Mirror System" have achieved remarkable gains in intelligent risk control. Among them, the Mirror System for pre-loan management boasts an accuracy rate of up to 70 percent in identifying high-risk clients and credit fraud. This is not only used by the company internally but also made available to external clients. After the launch of its intelligent collection robot, Zhiniu, FinVolution not only guaranteed a higher debt collection rate but also saved up to 40 percent in cost compared with the original manual collection system.
- **Centralized data and diversified analysis methods:** After the deployment of the big data platform, clients do not need to relocate their data because it is now stored centrally on the platform. This is a great benefit for management to access information more quickly and also reduces redundant data storage. Analysts can read data directly on the platform for modeling and data analysis. In addition, compared with the original database-based analysis methods, the analysis methods provided by the new platform are robust and diversified, offering great flexibility to the analysts.
- **Security compliance passed the China Academy of Information and Communications Technology requirements:** The new big data platform has fully met security compliance requirements proposed by the country's financial regulators. In addition, it has passed the security test of the China Academy of Information and Communications Technology (CAICT).